MAY 21 1924

Registered at the G.P.O., Sydney, for Transmission by Post as a Newspaper. Published Weekly. Price 1s. 6d.

THE

# MEDICAL JOURNAL OF AUSTRALIA

VOL. I.—11TH YEAR. SYDNEY: SATURDAY, APRIL 12, 1924. No. 15.


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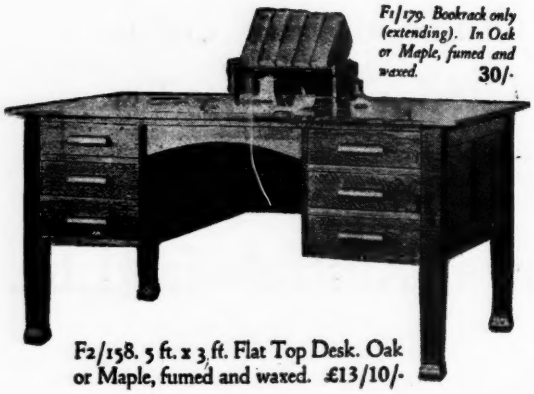

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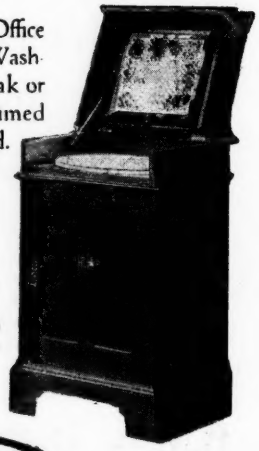

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## SOME FIGURES AND CONCLUSIONS DRAWN FROM AN INVESTIGATION INTO TUBERCULOUS INVALID PENSIONERS IN AUSTRALIA.

By M. J. HOLMES, D.S.O., M.B., D.P.H.,
AND
FRANK R. KERR, D.S.O., M.B., D.P.H.,
*Commonwealth Department of Health.*

As one outcome of recommendations made by the Committee appointed by the Commonwealth Government in 1916 to investigate the causes of death and invalidity in the Commonwealth, arrangements were made for the notification to the Commonwealth Department of Health of persons applying for invalid pensions on account of tuberculosis and for the examination of these persons and of as many of their immediate contacts as possible by quarantine officers in the Commonwealth Service.

A form was drawn up for the use of the examining medical officers and the completion of this form necessitated a thorough investigation into the present and past history of the patient and of his family, his living conditions, social conditions and environment in general. The forms on completion were sent to the Director-General of Health for compilation.

In all four hundred and nineteen of these forms have been completed and the information contained in them has been compiled by us. It is not proposed in this paper to discuss in any detail the figures obtained from this compilation, but merely to draw attention to some of the more important conclusions derived from the study of the figures.

Tuberculous pensioners were examined in the cities of all the States of the Commonwealth, except Tasmania; consequently the figures to be quoted are representative of all Australia.

TABLE I.
NUMBER OF PERSONS EXAMINED IN CONNEXION WITH INVALID PENSIONS ON ACCOUNT OF TUBERCULOSIS.

| State. | Number. |
|---|---|
| In New South Wales | 214 |
| In Victoria | 62 |
| In Queensland | 80 |
| In South Australia | 8 |
| In Western Australia | 55 |
| Total | 419 |

There is a general impression that a considerable amount of the tuberculosis in Australia is imported from overseas as a result of immigration. Now, out of four hundred and nineteen tuberculous pensioners examined three hundred and twenty-four (77%) were born in Australia and ninety-five (23%) overseas. Of those born overseas only twenty had been in Australia for less than ten years and thirty-nine for less than twenty years, before applying for a pension.

Table II.

Length of Residence in Australia of Tuberculous Pensioners.

| Length of Time in Australia. | Number. | Per-centage. |
|---|---|---|
| Born in Australia .. .. .. .. .. | 324 .. | 77% |
| Resident more than twenty years before applying for pension .. .. | 56 .. | 14% |
| Resident less than twenty years before applying for pension .. .. | 39 .. | 9% |
| Resident less than ten years before applying for pension .. .. .. .. | 20 .. | 5% |

Coming to the question of the interval elapsing between the time when the patient first became aware that he was suffering from tuberculosis and the time when the pension was applied for, we find that of the three hundred and ninety-three pensioners who gave information on this point, three hundred and seventy (94%) had been aware of the disease for less than ten years. Thus we see that practically all the patients came up for pension within ten years of becoming aware of the disease. The number coming up for pension within five years of the first appearance of symptoms was 73%. Arrivals from overseas applying for pensions within ten years of arrival amounted to only 5% of the total pensioners examined.

From this we may assume that either the great majority of arrivals from overseas had no tuberculosis on arrival or that, if they had, the disease took in the majority of cases longer than the practical maximum of ten years to produce effects leading to an application for a pension. The former assumption is the more probable. As a matter of fact, only four patients of the ninety-five from overseas gave a history pointing to infection with tuberculosis prior to arrival in Australia.

From the above facts it is legitimate to conclude that tuberculosis is not being introduced to any definite extent into Australia as a result of immigration.

### Age and Sex of Applicants for Tuberculosis Pensions.

The pensioners examined included two hundred and sixty-seven males and one hundred and fifty-two females. There is a considerable preponderance of males.

Sixty-five out of one hundred and fifty-two females examined (43%) were between sixteen and thirty years of age, whereas only 16% of the males examined (forty-three out of two hundred and sixty-seven) were between these ages.

Between thirty and forty years of age males largely preponderate, but there is a period—forty to forty-five years—when females again preponderate. After forty-five years of age the male applicants for pensions are again largely in excess of the female. This excess of females going down to tuberculosis about the early years of child-bearing and again about the time of the menopause is very interesting. This age incidence in females as contrasted with males may be compared with the tuberculosis death rate curve for males and females. Here also the female death rate rises early to a peak, falls and rises again in later life, whereas the male curve shows a gradual rise to an apex late in life.

### Relative Importance of First Symptoms.

The investigation showed cough as the first symptom in three hundred and fourteen persons (75%) of the four hundred and nineteen examined. Then in order of frequency were loss of weight 23%, debility, lassitude and weakness 23%, hæmoptysis 19%, dyspnœa 19%, pleurisy and pains in the chest 18%, night sweats 12% and loss of appetite 7%.

### Sanatorium Treatment.

The investigation brought out an important point regarding the extent to which the facilities for sanatorium treatment in Australia are availed of by the poorer classes from whom the pensioners are drawn.

Of the four hundred and nineteen pensioners examined two hundred and eight or 50% had received sanatorium treatment, the majority of these for a period exceeding three months. Others had received treatment in general hospitals either as in-patients or out-patients or both; others still had received treatment from private doctors. Twenty-six persons out of the four hundred and nineteen stated that they had not received treatment.

The results of the sanatorium and hospital routine and treatment are manifested in evident care afterwards taken by the majority of the pensioners with regard to infective discharges.

Thus, of the three hundred and ninety-eight pensioners who were expectorating, two hundred and ninety-four or 74% were found to be taking adequate precautions for the collection and disinfection or destruction of sputum, according to methods learned in sanatorium or hospital. The food utensils, cups, plates, spoons *et cetera* of one hundred and seventy-one patients (43%) were kept separate from all others. In twenty-nine instances bed linen and towels were kept separate. As will be seen later, more than 90% of the pensioners stated that they slept alone in bed and usually either out of doors or in a room by themselves and this even under the worst conditions of overcrowding.

These findings furnish a good independent criterion of the value derived from sanatorium treatment from a preventive point of view, seeing that in so large a proportion the precautionary measures learned in the sanatorium or hospital were continued by the patient on returning to his home or lodgings.

### Presence of Tubercle Bacilli in the Sputum.

In the case of two hundred and sixty-one pensioners the sputum was examined for the presence of tubercle bacilli and in two hundred and two instances (78%) tubercle bacilli were found. This emphasizes the value of the lessons learned in the sanatorium, since the great majority of these pen-

sioners with tubercle bacilli in the sputum were found to be taking adequate precautions.

### Occupation.

It was found that with the exception of women pensioners doing housework in their own homes, the pensioners were practically all without occupation (three hundred and seventy out of four hundred and nineteen). This could be accounted for from the consideration that if they are actually earning a living, they may be regarded as ineligible for pension. We find, however, that in 50% (two hundred and seven out of four hundred and nineteen) the patient had followed no occupation of any kind since the onset of symptoms and this point throws a side light on the loss to industry and to national economy which results from tuberculosis. From the onset of the disease the pensioner in the majority of instances ceases to produce and is kept at the public expense until death occurs.

Of the two hundred and twelve pensioners who continued at work after the onset of symptoms, seventy-two were following an occupation dangerous to the health of others. These included domestic service (fifty-four), handling food (sixteen) and nursing (two).

As regards occupation prior to onset of symptoms, the information gathered was not sufficiently complete to enable deductions to be drawn, but seventy-eight of the four hundred and nineteen pensioners (19%) gave a history of engaging in occupations involving inhalation of dust and of these sixty-five were miners.

### Exposure to Infection.

Only one hundred and thirty-two individuals (31%) examined gave a history of definite known exposure to infection. The exposure was at home in fifty-eight instances (14%), at work in forty-five (11%) and amongst friends in twenty-nine (7%).

The exposure in eighty-two instances was constant, in twenty-six intermittent and in seventeen occasional.

The remainder (69% of all persons examined) were not aware of any definite exposure to infection.

Other inmates of houses occupied by tuberculous pensioners, including the members of the families of the pensioners, were examined when possible.

Of nine hundred and ninety-two close contacts so examined twenty-five or 2.5% were found to be suffering from tuberculosis and eighteen or 1.8% had suggestive symptoms.

The detection of tuberculosis amongst these close contacts rested entirely on physical signs and symptoms. The percentage found actively infected (2.5%) is very small.

In three hundred and eighty instances (90%) the patient was found to sleep alone in bed, but in thirty-five instances the patient slept in the same bed indoors with one or more other individuals, the number of contacts so exposed being forty. Thirty-two of these bed-fellow contacts were examined, but in none were physical signs or symptoms of definite infection detected. In three persons, however, there was some suspicion of infection. The length of time over which this close exposure to infection had been taking place was not ascertained.

In thirty-eight instances the patient slept alone in bed, but with another person in the same room, the contacts so exposed numbering in all fifty-eight. Among these contacts (*id est* sleeping-room contacts) three or 5.2% were found to be suffering from tuberculosis.

Thus, broadly speaking, in ninety-eight sleeping contacts of whom sixty-nine were examined, actual infection as evidenced by physical signs was found in only three instances or 4%, although in eight further persons there was some suspicion of tuberculosis.

The above is a very small rate of infection in such close contacts, but the von Pirquet test, if it had been applied, might have given different results as indicating latent tuberculosis not evidenced by physical signs or symptoms.

As regards overcrowding in general the investigation did not show any great difference in infection in overcrowded houses as against those not overcrowded.

Thus four instances of tuberculosis infection in contacts were found in sixty-seven overcrowded houses, whereas twenty-five instances of infection were found in all the four hundred and seventeen houses involved in the investigation. The frequency in each is the same, namely one case of infection per seventeen houses.

As explained earlier, however, the evidence all points to the patient sleeping alone in almost all instances, no matter how overcrowded the house may have been.

Where, however, overcrowding is combined with gross insanitation, there appears to have been some increased tendency towards a greater rate of infection, but this was by no means definite.

Neither did the investigation incriminate individual houses as important factors in the spread of infection. Tuberculous disease or death from tuberculosis was noted as having previously occurred in the house in only twenty-nine instances (7%) of the four hundred and seventeen houses in regard to which records were kept.

Table III.

Infection in Other Members of the Family.

| Relationship. | Number. |
|---|---|
| On the father's side .. .. | 25 |
| On the mother's side .. .. | 16 |
| On both sides.. .. .. .. | 4 (included above) |
| In brothers or sisters or both | 32 (separate families; several in one family sometimes) |
| In children .. .. .. .. | 16 |
| In husband or wife .. .. | 17 |
| In grandchildren .. .. .. | 1 |

The investigation showed that very little is being done in Australia in connexion with the visits of health officers to homes where tuberculosis pensioners are living.

### Family Tuberculosis.

The number of families examined was four hundred and seventeen. Tuberculosis was recorded in the family in ninety-six separate instances (23%) (see Table III.).

## TWO SEA-FARING DOCTORS OF THE PAST: LIONEL WAFER AND THOMAS DOVER.[1]

By R. Scot Skirving.
*Sydney.*

When your Secretary asked me to address you here I felt that a most kindly compliment was being paid to me, but the gratification was tempered by the thought: "What can I say that would not be better said by others and how do I know that I shall not end by boring my audience?" I have these misgivings still in my mind as I speak. Several professional subjects, general or technical, presented themselves, or were suggested by Dr. Dale, on which I felt I could write with less chance of wearying than if I pleased myself, as I am about to do, by talking to you on a subject which has more historical interest than medical. Somehow, Gentlemen, I took it into my head that I could collect in a paper some of the information I have from time to time gathered on a matter which has always attracted me. I admit I run grave risk of wearying you, for I have not the historical touch of Charles MacLaurin and I doubt my ability to make the dry bones of forgotten voyages and the adventures of long dead sea-farers alive and convincing as Frederick Treves could have done. Nevertheless, I propose to try your patience by a little account of two men who, being doctors, led lives of action at sea and even in spite of their harsh and difficult environment were able to add something in their day to the common stock of knowledge, hence, perhaps at some risk I have chosen Lionel Wafer and Thomas Dover.

All of us who care for matters of history, are no doubt aware that the constant policy of the Spanish Crown in regard to its discoveries and possessions in the Western Hemisphere from the time of Columbus was a very narrow and intolerant system. The absurd bull of Alexander the Sixth in in 1493 dividing the western and eastern halves of the world into spheres of influence for the Spanish and Portuguese nations, although modified the following year by the treaty of Tordesillas, gave a kind of religious sanction to the exclusiveness of these two peoples. But apart from this the Spaniards were determined to keep these vast new lands absolutely free from contact with the other seafaring and trading communities of Europe. Nay, they even discouraged private trade among their own folk. This system amounted in fact to a selfish exploitation of these lands and their inhabitants for the benefit alone of the Spanish Crown.

Even as early as the latter years of the sixteenth century such a policy of pathological protection run riot was not to be endured and soon adventurous seamen—English, French and Dutch—began to appear in these forbidden waters and to trade by force or frankly pillage the Spanish settlements on the Caribbean Sea. Of these, Hawkins and Drake were the most famous. As the years passed and the seventeenth century began, the numbers of these interlopers increased, of various nationalities—traders, seamen, outlaws, adventurers of all sorts—a wild band indeed who formed themselves into that strange community which history calls the Buccaneers. I do not propose to enlarge on their origin nor to detain you with their general story, because every schoolboy with any imagination must have filled his youthful mind with their deeds, their reckless courage and their strange voyagings. They were indeed a striking company, often cruel, sometimes chivalrous, loyal as a rule to each other, very ignorant for the most part, just grown-up savage children in many ways. Yet, in spite of their crimes and follies, one cannot even two hundred and fifty years later fail to feel interest in their story. At their worst, they reminded one in their waste and wickednesses of the modern Bolshevik or red-ragger among us, for, as an historian of their doings—himself one of them—says that:

> Nothing is so deplorable as power in mean and ignorant hands. It makes men wanton and giddy, unconcerned at the misfortunes they are imposing on their fellow creatures, and keeps them smiling at the mischiefs which oftentimes brings themselves no advantage. They are like madmen that cast fire-brands, arrows and death and say: "Are we not in sport?"

By 1670 or a little later their organized exploits culminated in the sack of Old Panama under that extraordinary man Sir Henry Morgan. Their activities, however, persisted till almost the end of the first decade of the eighteenth century, when altered political conditions in Europe, notably the Peace of Ryswick in 1697, made private war on Spain in the west no longer possible. After that date the scattered incorrigible remnants of the "Brethren of the Coast" degenerated into being pure pirates without the cloak of a commission of any kind to make private war and their detestable careers usually ended violently. However, before the actual end came, as late as between 1680 and 1710, much interesting history was made by these bucanneers or privateers, as Woodes Rogers would have called himself. Some of them are quite famous, Bartholomew Sharp, a sanctimonious rogue, Watling, a blood-stained old villain, with strong views on eternal punishment and quite a leader in religious exercises, Sawkins, Eaton and a dozen others who lived exciting lives, and met with strange adventures on "perilous seas in faery lands forlorn."

The most interesting of them all was William Dampier, although he never rose to independent command among them. But his voyages, his discourse on winds and his endless observation on birds and beasts and the vegetable kingdom make his writings, I think, the most entertaining and in-

[1] Read at a meeting of the Western Medical Association, New South Wales.

structive of any stories of maritime adventure and discovery. I commend his works to you. No wonder a great Frenchman refers to him as "the incomparable Dampier" or that Pinkerton, the geographer, calls him "the Cook of a former age." I wish I had time to tell you something about him, for, with all his faults of temper, his inability to handle men and, when later in command in a King's ship, to gain their trust and loyalty, yet he seems to me to have been the wisest and most observant seaman of his time. When one considers the primitive methods of navigation which obtained, even fifty years after Dampier's day, one is lost in admiration at the correctness of his judgement, his sea-sense and the accuracy of his land-falls. In his times the latitude was found correctly enough; not so with regard to the longitude. "That ingenious artist, Mr. Harrison," had not then evolved the marine chronometer to carry Greenwich time correctly to the most ultimate sea. I doubt if any tables or instruments existed sufficiently correct to take and "clear" a lunar distance and so obtain a Greenwich date, reasonably near the truth.

Even in Anson's voyage they actually were astray in their longitude several hundred miles in their first attempt to round the Horn and, if this could occur in 1740 in a King's ship, you can imagine that in 1680 on a buccaneer cruiser the methods of fixing a ship's position were still more liable to error, yet Dampier and some of his associates with latitude and dead reckoning only seemed to have washed round the world in an uncannily correct way. He noted everything he saw. He really was a scientific sailor. His care in recording the ever-changing variation of the compass, especially in the "Roebuck" off the pitch of the Cape, where its unequal alteration "stumbled him terribly," is an example to us all of careful observation, whatever be our profession.

Of the band of buccaneers who crossed the Isthmus in 1681 and harried the western coast of South America, were Dampier, Ringrose, a sailor and an author, of whom I shall presently speak, and Lionel Wafer, a surgeon to the expedition. What manner of man was this member of our profession?

### Lionel Wafer [1660(?) to 1705(?)].

I am ignorant of the birthplace and upbringing of this interesting buccaneer, Lionel Wafer. He probably spent his childhood in Ireland, but in early life came to England. I cannot find any record of the place and amount of his medical education—I doubt if he had any diploma, as diplomas went in the seventeenth century. His own "Voyage" and Dampier's writings supply most of the too slender information we possess about him.

He himself begins his story by telling up that in 1677 he sailed in the "Resistance" for the East Indies "as servant to the surgeon of that ship" and that "he was still very young." I take it that he was just a kind of lob-lolly boy. He left the ship in the east and after various experiences returned home in 1679. But life on shore apparently held no prospects for his professional advancement and soon he shipped for a West Indian voyage, once more as servant to a ship's surgeon. His was indeed a roving unsettled temper, for he deserted at Jamaica and finding a brother settled there he worked on Sir Thomas Modiford's plantation. Modiford was quite a prominent empire builder of these times and was the Governor of the Island. His brother ultimately set him up in some sort of fashion as a surgeon in Port Royal, where he practised his profession—I do not know with what success. Soon, however, the call of adventure unsettled him. Jamaica at that time was one of the chief places where the buccaneers brought their spoil and planned fresh raids on the Spanish Main. You can even now imagine the wild orgies which Port Royal witnessd in these roaring days when a successful cruise filled the tropical town with roystering seamen flinging away the treasure which months of hardship, danger and bloodshed had put into their careless hands—men who flung their lives away as readily as the rifled riches of Spanish America. To two of such men did Wafer listen—Cook and Lynch—and soon we find him a member of that wild crew, the "Brethren of the Coast," on a cruise upon the Spanish Main. At Bastimentos, near Cathagena he met William Dampier, the most famous of them all, for the reasons I have already given. Basil Ringrose too was soon with them. A man of great physical strength and courage and considerable literary ability and a sailor, Ringrose was of the true adventurous type and kept a high heart in many perilous passages, till his end came later in 1686, when he was ambushed in a raid on the western seaboard of Mexico while driving off a mob of cattle to supply Captain Swan's ship for her run from America to the Ladrones. He also, you remember, crossed the Isthmus and was with Dampier and Wafer in their first experiences in the Pacific in 1681, but in the subsequent quarrels among them he remained with that able and plausible rogue Bartholomew Sharp and returned to Antigua in a prize, the "Most Blessed Trinity." In rounding Cape Horn, it is stated that they got as far south as 62°. If this be indeed correct—which I doubt—it is probably the furthest southern latitude reached to that date. He wrote the story of the voyage on his return to England. He had sufficient influence in London in city circles to organize a "trading voyage" to the South Seas in the "Cygnet" under Captain Swan, a simple honest merchant captain who had no stomach for wild adventure with the chance of sudden death at any time. It was on this voyage in which Dampier was again his shipmate, that he met his death. Dampier laments the loss of "his ingenious friend, Mr. Ringrose, who in spite of his efforts to organize the expedition, apparently had no mind to the voyage, but was necessitated to engage in it or starve." However, he lived a full life and I doubt not that the spirit of Kipling's "True Romance" supported him, even when he lay a-dying on the hot Savannah where the Spaniards ambushed him and that

> Comfortress of unsuccess
> That gives the dead good night

was with him till the end.

But to return to Lionel Wafer—what a leash of talent to find in a small buccaneer cruiser—Dampier and Ringrose and Wafer. Such a batch of ability on one little ship makes one think of like clusters of talent: the "Beagle" with Fitzroy and Darwin, or the "Rattlesnake" with Owen Stanley, Macgillivry, T. H. Huxley and Oswald Brierley. Well, Wafer crossed the Isthmus and got south as far as Juan Fernandez, a great resort of the buccaneers, the island in which Selkirk lived and which, as I shall tell you, gave Defoe the story of "Robinson Crusoe" to delight children, young and old, for all time. As was common, the wild company quarrelled, one party with Wafer and Dampier separating at Drake's Island from their comrades, because under Bartholomew Sharp "they found they could not stay with a captain in whom was expressed neither courage nor conduct." As already stated, Ringrose remained with Sharp in "The Most Blessed Trinity," a seared blood-stained prize, and became the historian of the "Dangerous Voyage and Bold Attempts of Captain Bartholomew Sharp." His admirers described the latter as "a sea-artist and valiant commander." That he knew his business as a sailor I do not doubt; indeed he in his safer old age compiled "Waggoners" which were the text-books of navigation and sailing directions of his time; but, all the same he was a sanctimonious scoundrel, "an unconscionable pirate with a price on his head," and Lord knows how he avoided swinging in chains on the banks of the London River as a warning to evil-doers.

Wafer and his band now once more landed on the Isthmus "to re-cross it to the North Sea" and commenced an odyssey of woe and hardship which it would be hard to equal in the annals of exploration. On the fifth day of their setting out, to wit on May 5, 1681, a sad misfortune happened to Wafer. As he was drying his powder in the sun a careless fellow passed with his pipe alight, a spark from which ignited the powder and Wafer was badly burned. The injury "exposed the bone behind the knee and burned the flesh of the thigh a great way above it." It had been decided that all who fell by the way should be killed to avoid their falling into the hands of the Spaniards and so lead to the destruction of their comrades marching on ahead. Wafer therefore tried to march, but "had hard shift to jog on and keep company with the party." He had a negro allotted to him to carry his medicines and dressings and the negro bolted with both. This was the climax and he felt he could go no further. From kindness the others decided not to kill him, or three others who gave in. One of them was "that ingenious man and good scholar Mr. Richard Gopson, who had served a druggist's apprenticeship in London." This was the quaint buccaneer who carried his Greek Testament with him and "would translate into extemporary English specially apt passages for such of the company as were disposed to hear him!" Such an one was Wafer's companion "when he felt so faint, that not being able to trudge further through the rain and woods that he remained behind and so set up his rest among the Indians of Darien." It is pleasant to note that "there was a kindly parting from those who went on." I leave you to imagine his parlous state, crippled with a dangerous and septic burn exposing the bone, no shelter, no possibilities of proper treatment or "no means to alleviate the anguish of my wounds," in a difficult country with heavy rain, doubtfully friendly Indians and the menace of pursuing Spaniards. Those who were well and had proceeded were in a tight corner themselves, burdened with loot, but little provision. One of them got drowned crossing a river with three hundred dollars round his neck. His comrades left him where they found his body with his money untouched. They lost their way in the maze of jungle and flooded streams and the Indians refused to guide them further. It was an *impasse* with death hovering over all of them. Which way were they to march? A brain wave came to one of the buccaneers, "a man of experience, one who knew the feminine temperament," as Treves says. "This mariner, with a look at the disdainful Indian who had scorned hatchets and I know not what else, drew something very carefully out of the sea-bag. It was an unusual object to be found in a buccaneer's baggage. When it was unfolded and shaken out it proved to be a sky-blue petticoat"—the loot of some South American town. This engaging garment "the seaman with a grin popped over the head of the unwilling guide's wife and fastened it round her waist with the deftness of a man who had knowledge of such things." The giggling lady "was so much pleased that immediately she began to chatter to her husband and soon brought him into a better humour." By "the virtue of this radiant garment the weary pirates were led many distressful days" till at length they reached the wished-for northern sea.

But meanwhile Wafer's wound was no better and he and his party were like to die of starvation or be slain. But kindness in some of their unwilling hosts prevailed. Instead of being pelted with green plantains "as we sat cringing and shivering as you would throw bones to a dog," a kindly soul secretly brought ripe ones and better still a native leech undertook the cure of the stinking wound. The treatment consisted in the daily application of a "poultice of certain herbs chewed to a pulp, placed upon a plantain leaf and laid upon the sore which was so effectual that in twenty days this poultice of spittle and herbs cured me, save for a stiffness and a benumbedness which at times I find to this day." So wrote the grateful patient on his return to civilization. But with returning health Wafer's troubles were not over. The stern husband of the lady who got the sky-blue petticoat and the other Indian guides had not returned and their tribesman feared that the white men had killed or abducted them, so in return they proposed to burn Wafer and his companions. However, they were reprieved and sent on their way, only to undergo desperate hardships, starvation and the countless perils of a tropical jungle with furious streams in flood. They too lost their way and finally had to return to the Indians, where the guides' safety being assured by that time they were kindly treated.

Wafer now found that blood-letting was one of their methods of treatment. The operation was performed by shooting at very short range tiny arrows with "gaged heads into the flesh, some by luck just entering veins and on being removed blood slowly flowed." Now was our practitioner's chance. "The chief's lady being about to be blooded in the usual way," Wafer said "he could do it better," and having fortunately saved his dressing-case he proceeded to operate. The patient reclined, while our surgeon tied a wisp of vegetable fibre round her upper arm. The husband stood critically by while Wafer "with his lance breathed the vein." "As the wind and blood poured out the terrified husband swore by his tooth—note the current oath in Darien circles—that he would have my blood if any evil befell his lady. I drew twelve ounces and his lady was greatly relieved. I gained great reputation—and was adored. Thereafter during my stay I was carried in an hammock from plantation to plantation where I administered physic and phlebotomy. Lacerta, the chief, thereupon promised me his daughter in marriage as soon as she was old enough, purposing to keep me always with him." But these embarrassing tokens of esteem were lost on Wafer who wanted badly to get to the North Sea, as did poor Gopson who was visibly failing. With various promises of return Wafer at last left these kindly Indians of whom he wrote an extraordinarily vivid account, with much valuable information about their country and its productions. He gives a curious note on the presence of what he calls "white Indians," in the proportion of one in two hundred to three hundred of the ordinary copper-coloured population. There can be no doubt from his clear and convincing description that these people were simply albinos. He tells about their intolerance of light and their curious blinking eyes and white hair, but says that when they had children, that the offspring were copper hued and not as one or both their white parents.

Eventually his party reached the north coast at Le Sounds Key and were taken on board an English ship where he found some of his recent shipmates who had preceded him across the Isthmus.

"As I sat cringing upon my hams," says Wafer on his reaching the shore, "among the Indians after their fashion, painted as they were—red, yellow and blue—very bright and lovely, all naked save only my waist and with my nose-piece hanging over my mouth, 'twas the better part of an hour before one of the crew, looking more narrowly on me cried out: 'Why, here's our doctor'!" Wafer adds that "'twas near a month before I could get rid of my paint and when it did come off, 'twas usually with the parting of the skin and all."

It is sad to relate that poor Gopson, the erudite apothecary, "when he reached the brink of the sea was already dying and indeed in a few days he did die." It was not to be his to see again the busy streets of London or some English lane in June.

"One may imagine," says Treves, "that, as he lay delirious he would still hold in his hand the weather-soddened Greek Testament," repeating perhaps the words of hope and comfort from some favourite passage, and "as some kindly pirate fanned him with a leaf, he would fancy himself back again in the cool, sweetly-scented shop, in the familiar street, handing sachets over the counter to gentle-eyed English girls."

I would weary you if I pursued Wafer's adventures further at this point; suffice it to say that he had plenty, mostly in company with Dampier. What a solace these two educated men must have been to one another in the roystering roaring band of ignorant seamen and ruffians who chiefly composed the crew of the vessels in which they sailed, where they had no privacy, no berths—they slept on deck between the guns—and kept their precious journals between the joints of a piece of bamboo, stopped with wax at both ends to keep them dry. How they rose so high above their environment in being able to accomplish all they did speaks highly for their persistent love of knowledge. Well might grave John Evelyn, the diarist, who was one of the company at a dinner at the house of Samuel Pepys at which Dampier was a fellow guest, listening to his interesting talk of unknown lands and perilous winds and seas, remark favourably of him and say indeed "that he was a more modest man than one would have imagined by the relation of the crew he had assorted with"—most true of both Dampier, Wafer and Woodes Rogers, for all their writings are simple, modest and the result of personal experience.

Finally, both Dampier and Wafer landed in Virginia and a little later, yet once more want again to sea together, to Africa and to the Pacific. Wafer returned with Cooke to the West Indies, received the King's pardon and again tried to settle in Virginia. However, he apparently "had some trouble there" and went to England in 1691, settled finally in the Home-land and died in 1705. I can find little or nothing of his medical career in England, but he certainly was not idle, for it was in 1699 or thereby that he published the admirable account of his travels which went through more than one edition. In the second edition of 1704, dedicated to John, Duke of Marlborough, he makes a strong appeal to the Government "to make a settlement on the Isthmus of Darien, undeterred by a recent failure there, whereby a free passage by land from the Atlantic to the South Sea might easily be effected and would be of the greatest consequence to the East India trade."

I wish I could tell you of his later personal life, but I can find nothing to let us know if this interesting man married, his circumstances or the manner of his end. I don't suppose he was a high class practitioner, but I think he had much to make us feel interest in him. He was brave, adventurous and uncomplaining; he evidently was faithful in the performance of his professional duties and considering his small opportunities of study I gather that he was quite equal to the emergencies of practice in the difficult circumstances of his life. His literary style is artless, but bears the stamp of an

acute, careful, observant mind. His account of the primitive Indians of Darien is a model of what such observations ought to be. I wonder, in these later years in England which I hope were unclouded by actual poverty, if his mind often went back to the wild days of his early manhood. I wonder indeed if perhaps, living in a poor London street, with the drizzle and fog of an early November evening darkening his dingy rooms, if there flashed at times upon his inward eye a vision of sun-bright seas and dazzling island beaches and he seemed once again to hear the shouts of his companions and the laugh of the dusky sirens whose smiles were bought with the ear-rings and gems of Spanish ladies. Perhaps! Who knows? But the sea and medicine are both usually hard paymasters and I fear he may have died in poverty.

### Thomas Dover (1660 to 1742).

Thomas Dover, this curious masterful doctor, may probably be known to some of the profression as the original compounder of *pulvis ipecacuanha compositus,* but how many medical men remember him as the privateersman who actually found Alexander Selkirk, whose story gave Defoe the germ from which his teeming brain produced "Robinson Crusoe"? I purpose, therefore, to tell you something about this most uncommon practitioner.

Dover was born in Warwickshire about 1660. He is said to have graduated bachelor of medicine at Cambridge in 1683, but his name is apparently not on the roll. It is probable that he never proceeded to the doctorate in medicine, for in later life he speaks of himself as a "poor bachelor of physic," although in contemporary print, the letters "M.D." sometimes appear after his name.

He tells us that he lived in the house of Sydenham, apparently as an house-pupil and always through life spoke with pride and respect of that great teacher. About this time he contracted smallpox and I gather was treated by his master. He thus describes his treatment: "I was bled to twenty-two ounces and given an emetic. The rest of the treatment was simple. I had no fire in my room, the windows were constantly open, bedclothes no higher than my waist, twelve bottles of small beer acidulated with spirits of vitriol were administered every twenty-four hours."

This was in January, in England! However, he pulled through and in 1684 he began to practise in Bristol. Not much is know of this first assocation with Bristol, but it seems certain that he got on in practice there for he had made enough money by 1708 to hold a large share in the privateering expedition to the South Seas then fitting out in Bristol; indeed he became one of its chief officers. He was then forty-eight years old and must have been of an adventurous spirit to embark on such a quest. I can find no record of his domestic life, but his readiness to engage in a long, dangerous and doubtful voyage is in keeping with having given no hostages to fortune, for, as Bacon says, "wives and children are impediments to all great enterprises."

The ships chosen to cruise against the Spaniards in the Pacific were two smart little frigates—the "Duke" of three hundred and twenty tons and the "Duchess" of two hundred and sixty tons—which ships are referred to as "private men-of-war"! They were manned by a curious crowd of nondescripts of all nationalities—soldiers, sailors, tinkers, tailors, apothecaries, ploughboys—and I don't doubt thieves as well—in all three hundred and thirty-three men. Though the affairs of "this little floating commonwealth" were managed by a committee of officers of which Dover in virtue of his financial stake "was president with a double voice in its councils," happily for its safety and success it was commanded by a seaman of skill, courage and great commonsense—Woodes Rogers by name who many times must have chafed over the divided and often foolish resolutions which this precious committee passed against his better judgement. I had rather I were writing an account of this man than Thomas Dover, for I wholly admire the former and I sometimes dislike the latter. Dover was second or third in command and was made "captain of marines"! There were at any rate five surgeons and an apothecary or two with the expedition. Dover seems not to have taken medical charge, but nevertheless he ordered heroic bleedings to those who contracted some acute febrile disease at Guayaquil. He loved evidently to have a say in everything. One or two of the doctors apparently were "double-barrelled practitioners," prepared as occasion required to practise physic or become watch-keeping mates.

Another of the officers of the expedition was William Dampier who was in Bristol in 1708, a man who knew more about the distant seas to be visited than anyone alive. He had just returned from his recent disastrous voyage in the "Roebuck," which "had foundered at Ascension from perfect age"! He was wisely engaged as pilot of the expedition. The two ships sailed from the King's Road, Bristol, and went to Cork to look for more sailors, where the crews "were continually marrying, tho' they expect to sail immediately."

On their southern passage they visited the Canaries, Cape Verdes and the "Isle of Grande" near Rio de Janeiro. There Dover shows his love of sport by being always first to go on shore and spy out the land, especially if any strange bird or beast or fish was to be captured. I can read between the lines of the journal of the voyage and see how glad Woodes Rogers and Courtenay, the second captain, must have been to see him off joy-riding on shore and leave them to careen the ships "and bream their bottoms with Papal bulls" as was done later at Gorgona. I love to dwell on this voyage, but I must hasten on and tell you that the two little ships safely rounded the Horn on January 15, 1709, with no great damage and without the decimating losses which Anson experienced over thirty years later.

Having got into the latitude of Juan Fernandez, which is almost that of Sydney, "they haled into the mainland" to make sure they were to the east of the island and then ran down the parallel of latitude till they picked it up on the thirty-first of

January. The following day, although nine miles off the land, Dover persuaded Rogers against his judgement to let him have a boat and set off ashore. The latter remarks that "the people of the 'Duchess' admired to see our boat going ashore at that distance from the land." Night fell, a bright light was seen ashore and Rogers thought there must be enemies on the island. Dover, however, returned safely to the "Duchess" at 2 a.m., having done nothing. At daylight Dover goes off again in the yawl and there on landing meets a strange man clad in skins and scarcely able to answer questions in English, although he proves to be a Scotchman from Fife, by name Andrew Selkirk, who nearly four and a half years previously had been left at his own request on the island by Captain Stradling, of the "Cinque Ports." Dampier had been with him then and knew him for a capable sailor. Selkirk was sent off to the ships "clad in goatskins and he looked wilder than their first owners." I would like to dwell upon this historic meeting, but my space and your patience forbid, yet I hope I may, however, have told enough to encourage you to read the full story in Woodes Rogers' own journal. I have heard it called dull. It is not so engaging or instructive as the writings of Dampier and Wafer; as Rogers says simply: "I do not imitate authors on land, but keep to the language of the sea, which is more genuine and natural to a mariner." No "candid reader" who reads the old seaman's journal, would have it written otherwise.

Dover and Rogers camped on a green lawn and "putting a sail over four pimento trees, a tent was formed, which we though a very agreeable seat." It was indeed an "agreeable seat"—even as over thirty years later Anson found it, when he landed his scurvy-bitten men to win back health from the sweet air of this delectable island, where they listened to the sound of clear running streams and replaced the vitamins they lacked from the flesh of goats and the produce of the carelessly sown gardens of the old buccaneers.

Having refreshed their crews and refitted their ships, the adventurers now proposed to attack Guayaquil, nowadays the chief port of Ecuador, then and until recently one of the most unhealthy towns in the world. On the way there a few small prizes were taken and one large ship—a fairly rich prize. Woodes Rogers's brother was killed in the attack "being shot through the head and instantly died to my unspeakable sorrow," but this same elder brother adds philosophically that "as I began this voyage with the resolution to go through with it and the greatest misfortune or obstacle should not deter me, I will as much as possible avoid being thoughtful and afflicting myself for what cannot be recalled, but rather indefatigably pursue the concerns of the voyage"; and in such a spirit this philosopher seaman proceeds towards the sacking of Guayaquil which he calls "a charming undertaking in which no fatigue shall be too hard"!

The evils of divided counsels were now apparent in their delayed attack. The townsmen got notice of their arrival in the river, sent their riches away and prepared to resist. Rogers wished to attack at once, but Dover and I fear Dampier were against doing so. Parleyings took place. However, in the end the little company of privateersmen in three detachments, one of them under Dover, stormed the town and took possession of it. In later years Dover boasted in one of his medical books of how he "took Guayaquil by storm." He was indeed one of the commanders and behaved quite well, but if he had agreed to attack two days sooner, their booty would have been greater and their casualties less.

The plunder was stored in the principal church and Dover put in charge. His men wanted to tear up the flooring, to rifle the dead buried there and which told of their presence by the pronounced "odour of sanctity" which pervaded the building. This Rogers wisely would not allow, "because a devastating sickness had recently been prevalent in the town and many of the dead lay beneath the floor of the church and he feared infection." Osler, no doubt from sufficient authority, seems to accept the disease as plague. I am unable from lack of access to Dover's treatise, to tell you whether it seems so to me or what was the nature of the sickness from which the expedition soon suffered. One thing, however, is sure, that within forty-eight hours of their return to their ships, one hundred and eighty of the men sickened with some kind of acute febrile disease. The mortality was not great, only eight deaths. Dover at once returned to his profession proper and ordered the surgeons to bleed from both arms of the sick to heroic amounts and give a diluted sulphuric acid drink. He takes the credit of the low mortality to his skill.

While the adventurers still occupied the town, a bevy of handsome young women were discovered hiding higher up the river and "Mr. Conely and Mr. Alexander Selkirk, late governor of Juan Fernandez," were deputed to search them for jewelry. "Some of their largest gold chains were concealed round their middles, legs, thighs *et cetera*, but as the gentlewomen in these hot countries are very thinly clad in silk and fine linen, our men pressing them, felt the chains with their hands on the outside of the ladies' apparel, and with the highest modesty desired these gentlewomen to take them off and surrender them. This I mention as a proof of our sailors' modesty and in respect of Mr. Conely and Mr. Selkirk, for being both young men, I was willing to do them this justice, hoping that the fair sex will make them a grateful return when they arrive in Great Britain, on account of their civil behaviour to their charming prisoners." The sack of this town took twelve days, after which they sailed away to find and capture the Acapulco galleons from Manilla and this they shortly effected, taking the lesser ship. It was a rich prize and cost few casualties. Rogers himself unhappily got a gunshot wound of the upper jaw which destroyed a good deal of the bone and left him weak and suffering for months, till a sequestrum and finally a bullet were extracted or fell out, I had more correctly said. They not much later fell in with the greater galleon. The method of attack, decided upon against Rogers's advice by a majority vote at

their council, failed and they were beaten off. Rogers refused, in spite of his serious condition, to be a spectator of the engagement and was again "wounded pretty badly in the ankle." He survived it all and by his fortitude and skill, brought the "Duke" and "Duchess" and two prizes to Batavia safely, one prize being sold there.

From Batavia Dover sailed in command of the "Bachelor" as they had renamed their best prize and finally, after calling at Cape Town and sailing north about, the three ships arrived in the Thames in 1711. The booty was large, at least £170,000, a huge sum in those days. Dover's share must have been a very handsome one, for even Mr. Selkirk, who only joined up at Juan Fernandez, received £800.

It is pleasant to say that Woodes Rogers's career did not end with this memorable voyage, for the Government, recognizing that he was no ordinary man, appointed him Governor of the Bahamas, then a last sanctuary for the scattered freebooters of the Caribbean Sea and a nest of crime and lawlessness. This difficult job he carried out successfully and restored order and a safe passage for all who used these seas on their lawful occasions.

As to our old friend Dampier, he was now an elderly man and, capable as he was as a navigator, he was no leader of difficult expeditions. He could look for no further employment at sea, "for the merchants were so sensible of his want of conduct that they resolved never to trust him any more with a command." Probably he got a post in the Customs House in London, was consulted occasionally in maritime matters and died there, if not in affluence, at least in modest comfort. The success of this voyage was used as an argument against those who opposed the "South Sea Bubble" enterprise, "as not sufficient and chimerical."

Dover on his return was over fifty and a fairly rich man. Although he must have travelled on the Continent, it is certain that he once more pursued his medical career in Bristol sufficiently steadily to build up again a good practice, at least judging by the number of patients he says he visited each day during a fever epidemic. However, later he left Bristol and settled in London and was admitted a Licentiate of the Royal College of Physicians and lived in Cecil Street off the Strand. He was still a restless man and went into the country to Gloucestershire for several years, finally returning to London once more about 1732 to start work when over seventy, rather a ripe age to begin afresh in consulting practice. It was between 1732 and 1742, when he died, that his medical writings and controversial pamphlets were mainly produced. It is astonishing that a man of his years should have had so much keenness for fame and money, as is shown by his desire to obtain patients. He now lived in Lombard Street and saw his patients at the Jerusalem Coffee House, but his final place of residence was in Arundel Street where indeed he died, as said, in 1742.

He took various means to bring himself before the public, some of them not unknown at the present day—some of them also not extinct with us, of a not very admirable kind. He wrote a book of a sort: "The Ancient Physician's Legacy to His Country: What the Author has Collected in Forty-nine Years' Practice, Designed for the Use of all Private Families"—a long title. "It made a great noise in London and was talked about in every coffee house. It shows evidence of his having been a pupil of Sydenham, but in it he blows his own trumpet and attacks his colleagues with all the art and venom of a good hater. He wrangled himself into practice, by abusing the Fellows of the Royal College of Physicians "as a class of prejudiced gentlemen" and complains "that he has not got as good a practice as his merits deserved." He then turns on the apothecaries, the equivalent of the modern general practitioner, and gives them some shrewd thrusts, some of them quite just, for he denounces their frequent changes of medicines in order to swell their bills and cites instances "where in the course of a fever, the apothecary ran up an account of forty to sixty pounds when three pounds would have been ample." If the apothecaries cursed this free-lance consultant, how the courtly dignified physicians must have loathed his rasping tongue and aggressive personality.

His famous contribution to our *materia medica*—the compound ipecacuanha powder—he originally made as follows:

| | |
|---|---|
| *Opii* .. .. .. .. .. .. | ℥l. |
| Saltpetre | |
| Vitriolated Tartar āā .. .. | ℥iv. |
| Ipecacuanha .. .. .. .. | ℥i. |

Put the saltpetre and the tartar into a red-hot mortar. Stir till they finish flaming. Powder them fine, slice in the opium, grind, mix the other powder with them. Of this mass give forty to seventy grains in white wine posset going to bed. Drink two to three pints of the posset. Drink while sweating.

I fancy we prepare it now in a "more excellent way." To his credit he approved of cold bathing, but hated blisters. His pet remedy seems to have been crude mercury, eight drachms to ten drachms daily, "believing that it freed the patient from all vermicular diseases, opened all obstructions and made a pure balsam of the blood." One of his patients, a neighbour, "lived on asses' milk, syrup of snails and such stuff." Under Dover's treatment he took for his cough altogether one hundred and twenty pounds of quicksilver. In consequence of these therapeutic excesses Dover was nicknamed "the quicksilver doctor," but it all made a pamphleteering war and brought him practice. As before said, Dover, during these years after the great voyage probably did travel on the Continent, perhaps as far as Hungary, but he scoffs at those "who go abroad far at home," and adds: "If travelling be necessary to make an accomplished physician, I am very sure I have travelled more than all the physicians of Great Britain put together."

I think I have now said enough to tell you what manner of man was Thomas Dover. "If," as Osler says—and I am indebted to his paper for much in

mine—"he has drifted into our modern life on a powder label, while Thomas Dover, a commander in an unforgettable privateering voyage, the man who actually found Alexander Selkirk, with therefore more enduring claims on the memory of posterity, is forgotten," it is not what Dover's memory deserves. In spite of his faults which were neither few nor small, for he was a man of rough temper, "who could not easily agree with those about him," yet he was a bluff, hearty, headstrong Englishman with some likeable qualities. If he had lived in 1914, he would, I don't doubt, have joined up—probably as a combatant of some sort—where he would at least have shown courage if not wisdom; if as a doctor, it diverts me to imagine what his attitude to his official superiors of the Royal Army Medical Corps would have been—trying, if not insubordinate?

No; let us not forget this quaint and masterful member of our profession and I would not like us here, in Australia, to remain ignorant of his story; and to borrow once more the words of William Osler: "For we also of his craft have cause daily to remember with gratitude this man, the student and friend of the great Sydenham, who had the wit in devising a powder to remember his master's injunctions":

*Sine papaveris, sine opiatis et medicamentia,*
*ex iis confectis, manca et clanda esset medicina.*

## Reports of Cases.

### POSTERIOR SCLERAL PUNCTURE IN ACUTE GLAUCOMA.

By E. Temple Smith, F.R.C.S.E., D.O. (Oxon.),
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When, more years ago than I care to remember, I was Mr. Priestley Smith's house surgeon in Birmingham, he impressed on me the value of posterior scleral puncture in acute glaucoma. He was at that time probably the foremost living authority on glaucoma, von Graefe being, I think, dead. Nearly twenty years previously he had read his famous Jacksonian Essay on the pathology and treatment of glaucoma, and was at this time at the zenith of his fame.

He held the view that in acute glaucoma the determining factor was an excess of pressure in the vitreous over that in the aqueous chamber: to put it crudely, there was a dropsy of the vitreous. I often saw him puncture the sclera at the equator immediately before doing an iridectomy and also sometimes a day or two before. Like most of the opinions of this great man—great alike in his breadth of view and in the incisive clearness of his logical mind—time has not withered nor custom staled its present-day value.

During my medical life I have, whenever occasion offered, made use of posterior puncture and always with immense satisfaction. But on conversing with my colleagues I gather that they either only vaguely know of it or are not very enthusiastic about it and some have raised the bogey of retinal detachment as a result of such a puncture. Now a fairly long experience has satisfied me that such a result does not occur; any more than I believe it occurs after the much larger incision required for the magnet-removal of foreign bodies from the vitreous chamber by the posterior route. Neither does chorioidal hæmorrhage occur. To be able to relieve immediately the most intense pain; to convert an urgent necessary operation, from being one perhaps the most pregnant in possibility of disaster in the realms of surgery, into a safe, easy and deliberate one is no small matter. Posterior puncture will do all this. In the last three months four such cases have come under my notice. I append the notes. The last is the most typical and is the one by which I want to point the moral and adorn my tale.

Case I.—Mrs. D., aged fifty-six years, had a sclerosing keratitis at the upper corneal margin. Its ætiology remained obscure in spite of the usual search for septic foci or other cause. As there was some ciliary redness, I used atropine as well as other treatment. Her vision and tension were normal and there was no suggestion of chronic glaucoma. After several weeks of treatment she came in one morning with acute glaucoma of twelve hours' duration. She was in great pain, had a very congested eye, a cloudy cornea and a shallow chamber and she had been vomiting all night. I cocainized her eye well, punctured the sclera, letting out a bead of vitreous, and used eserine and cocaine freely. In an hour or so the pupil contracted and the pain was relieved. Next day the eye was normal and the sight restored. It will be argued that in this case a puncture was unnecessary. I agree; it may have been, but I was taking no chances. I knew it to be harmless and to be the quickest way in which to restore the eye to its normal tension.

Case II.—Mrs. H., aged seventy years, was sent to my rooms from the Royal North Shore Hospital with acute glaucoma of thirty-six hours' duration. She had great pain, vomiting and dim vision. I immediately did a posterior puncture and sent her back to the hospital for the usual routine treatment of purgation, leeches and hot fomentations. Each day it was reported that she was free from pain and that the eye was less red. I saw her on my weekly visit three days after the puncture, intending to operate. I found her eye normal in tension with a small pupil and free from congestion. In view of her age I judged an operation unnecessary and she has remained happy with good vision under eserine. I shall trephine her eye later if necessary.

Case III.—Miss J., a domestic servant, aged forty-five years, was sent to the Royal North Shore Hospital by Dr. Doak who had seen her that morning. She was suffering from typical acute glaucoma with cloudy cornea and a vertical-oval dilated pupil. I carried out posterior-puncture of her eye forthwith. This time I did not see any vitreous exude, though no doubt a very small amount did so, as the tension was slightly lowered. Priestley Smith has pointed out that in some of these cases the vitreous is membranous and perhaps contains septa. She was sent to bed with the usual routine treatment. As I was not at ease about having relieved the tension sufficiently, I visited her next day. I found the pain relieved, but the pupil was only semi-contracted and the eye was still congested and the tension full. I, therefore, did an iridectomy under general anæsthesia. She had no more pain, but at the end of a week the eye remained somewhat congested, though the cornea was clear and the tension was still on the full side. I thereupon did another puncture under cocaine, this time releasing quite unmistakably some vitreous. From this moment she rapidly recovered and when last seen had almost normal vision. The affected eye was her better eye.

Case IV.—Mr. X.Y., aged sixty-five years, had almost lost the vision of his left eye from acute glaucoma some years ago. An iridectomy had been done, but a hæmorrhage had occluded the pupil. The right eye had been under my observation for a few years and, though his vision was only 5/6, I could never find any evidence of glaucoma. There was no field defect and no scotoma, the disc was of good colour and not cupped. The tonometer revealed no rise of tension. The anterior chamber was rather shallow, so I had used instillations of eserine, at first regularly, but of late only intermittently, as he saw me at intervals. At his last visit I gave him a good report.

A few weeks ago he wired me that he would arrive from the country—a three hours' journey—at 7.30 p.m.

He did so and told me that he had been taken with severe pain in the right (the good) eye that morning; the sight had become very dim and he had vomited. He suspected glaucoma and had used eserine. When I saw him he was in intense pain and had vomited during the whole of his journey. The cornea was steamy, the pupil dilated and the tension much increased. I drove him to a private hospital and within an hour had punctured his eye, letting out a little vitreous fluid. Leeches, eserine and morphine were used. Next morning—he had had sleep—the cornea was clear, the tension normal and the sight to his great joy restored. At the end of four days the eye looked quite normal. I then trephined it under cocaine. A fortnight later he returned home without any impairment of vision whatever and with a good filtering scar.

The responsibility of operating on a one-eyed man with acute glaucoma is enormous. But by relieving the strangulated circulation and thereby removing the acute symptoms of glaucoma, it is possible to postpone operation until the eye is quiet enough for trephining or, failing that, iridectomy can be done without undue risk.

I do not know why this procedure is not more emphasized by teachers and in text-books. It has stood the test of time and is analogous to a herniotomy in strangulated hernia. I see no reason why it should not be done by the practitioner in the country, provided that he can diagnose acute glaucoma, has seen it done once and possesses a Graefe knife with a virgin point. It certainly should be done as a routine measure by the ophthalmic surgeon.

# Reviews.

## OUTLINES OF SURGERY.

IT is with a certain sense of relief that G. L. Chiene's "Handbook of Surgery" is opened after a surfeit of the many weighty tomes available. As the author says in his preface, his small book "is not intended to compete with the larger surgical text-books. An attempt has been made to emphasize the more important surgical conditions met with."[1]

And it can be said with confidence that all who read it, will benefit by the clear, terse descriptions and the always apt illustrations and diagrams.

It is an ideal book for students in the wards as its pocket size permits of easy portability and it gives a practical, reliable short account of all subjects likely to be met with in a manner which is most useful.

The clear print and the easy entertaining style make it a readable book. It might well be added to any library with lasting satisfaction.

## REGIONAL ANÆSTHESIA.

THE subject matter of Dr. Gaston Labat's book on regional anæsthesia appears to be largely the author's personal experience in the use of "Novocain" solution for producing localized anæsthesia as a preliminary to surgical interference.[2] Attention is drawn to the necessity for a minute knowledge of the anatomy of the peripheral nervous system and for the special education of the theatre staff in this class of work. The direction given for the preparation of solution, types of syringes and needles used and technique of injection for the production of intradermal wheal, field-block and nerve-block are clear and concise. There is no wading through a maze of unnecessary detail and padding is conspicuous by its absence. The major portion of the book is devoted to the practical detail of producing the required anæsthesia in the various regions of the body so as to allow of the necessary surgical procedure being carried out with a minimum of discomfort to the patient and to the complete satisfaction of the surgeon.

A special chapter is devoted to a consideration of intraspinal block (spinal anæsthesia) and its indication, contraindication, advantages and disadvantages are summed up in a concise and impartial manner.

The concluding chapter is given over to a general discussion on the value of regional anæsthesia. Here the subject is dealt with very frankly and this chapter is well worth the attention of every operating surgeon. The book is very greatly enhanced in value by the admirable illustrations and the printing, paper and binding are all that can be desired.

A sound knowledge of the principles and practice of regional anæsthesia would be of inestimable value to surgeons living in isolated districts where the services of a trained *confrère* are difficult to obtain.

If a greater number of practising surgeons were to make use of regional anæsthesia, they would become better surgeons as it demands attention to detail in technique, the power of imparting confident assurance to the patient and care and gentleness in the handling of the tissues.

## PERINEAL PRURITUS.

DR. J. F. MONTAGUE states that the motive impelling him to write his monograph "Pruritus of the Perineum" is that specialists should make researches into moot topics and dark places in medicine for the general practitioner.[1] The author has an experience which is probably unique, as he treats no other disease than pruritus of the anus in the Rectal Clinic of the Bellevue Hospital, New York. With such intense specialization, he still has a broad outlook as shown by the list (on pages 119 to 121) of the abdominal diseases which may cause *pruritus ani*. The list includes most of the more frequent pathological conditions of the abdomen as well as diseases of the genitalia. Frequent consultations are held with the general surgeon, the gynæcologist and the physician. The author believes the cure of the indirect variety of anal pruritus consists in first clearing up existing foci of diseased viscera either by medical or surgical means.

Two varieties of the disease are recognized: the direct, due to causes acting locally and the indirect, due to abnormal afferent stimuli from the viscera referred to the skin area supplied from similar segments of the spinal cord. We are not convinced by the author's explanation that in upper abdominal lesions the pain is referred to the perineum owing to the free communication between the various abdominal plexuses.

The indirect variety, if unrelieved, passes into the direct of which three grades are recognized: productive dermatitis, exudative dermatitis and lastly kraurosis.

The author trenchantly criticizes Murray's bacteriological methods from which he concluded that the *streptococcus fæcalis* was responsible in 100% of cases, but admits that staphylococci and *Bacillus coili* are probable occasional infective agents. Four hundred local applications have been tried, but only the prescriptions of those found useful are given. Bromides have proved useful in the indirect variety presumably by increasing the threshold resistance of the nerve synapses. X-ray, radium and ionic medication are occasionally useful, but in intractable cases surgical procedures are necessary. Many operations are described. Most of them, including the author's, are modifications of Ball's operation in which by raising flaps around the anus the superficial nerves are divided and the area rendered anæsthetic.

[1] "Hand-book of Surgery," by George L. Chiene, M.B., C.M., F.R.C.S. (Edin.); 1923. Edinburgh: E. & S. Livingstone; Sydney: Angus & Robertson, Limited; Crown 8vo., pp. 603, with 109 illustrations.

[2] "Regional Anæsthesia: Its Technic and Clinical Application," by Gaston Labat, M.D., with a Foreword by William J. Mayo, M.D.; 1923. Philadelphia and London: W. B. Saunders Company; Melbourne: James Little; Royal 8vo., pp. vii. + 496, with 315 illustrations. Price: 38s. net.

[1] "Pruritus of the Perineum (Pruritus Ani, Vulvæ and Scroti)," by Joseph Franklin Montague, M.D.; 1923. New York: Paul B. Hoeber, Inc.; Demy 8vo., pp. 200, with 37 illustrations. Price: $3.50.

The Medical Journal of Australia

SATURDAY, APRIL 12, 1924.

## National Insurance.

The question of national insurance is one which should be exercising the mind of every medical practitioner in the Commonwealth. Most practitioners who take an interest in medical politics, know that it is the expressed intention of the Commonwealth Government to introduce a system of national insurance. They also know that it has been definitely proposed that any scheme that is inaugurated, is to be compulsory and will include medical benefits. It is to stimulate the interest of these individuals and awaken that of others that reference is made to the subject.

In consequence of the appointment by the Commonwealth Government of a Royal Commission to inquire and report on the matter and in view of the fact that national insurance affects the medical profession in Australia as a whole, the Federal Committee of the British Medical Association in Australia has taken steps towards forming a uniform policy in connexion with it. It will at once be apparent that any policy which is evolved, must be based on reasons and principles which are thoroughly sound. The policy must be more than a general agreement or disagreement. It must be specific. The Federal Committee has decided to be guided largely in the determination of its policy by the opinions held by individual medical practitioners. It has taken certain preliminary steps in order to assist medical practitioners in formulating their views. The Victorian Branch of the British Medical Association has already taken the matter up seriously and has issued to its members a *questionnaire*. The Federal Committee has asked each of the other Branches to send to their members a similar list of questions. If each medical practitioner will do as he is requested and answer the questions put to him in this way, the Federal Committee will have some foundation on which to build its policy. The Victorian Branch also asked Dr. J. Newman Morris to compile a paper on national insurance. This was published in The Medical Journal of Australia on March 8, 1924. The subject was approached by Dr. Morris in a complete and capable manner which has earned for him the gratitude of everyone concerned. Medical practitioners are urged to study this paper very carefully and to keep it for future reference. Dr. Morris first of all discussed the subject from the historical point of view. He then described the *National Insurance Act* of Great Britain. He dealt with the methods of its administration and the part taken by medical practitioners working under its provisions. He discussed the advantages and disadvantages of the scheme and concluded with reference to the position in Australia at the present time. The attention of medical practitioners is also directed to the supplement to *The British Medical Journal* of January 5, 1924. This supplement contains an account of the case for insurance practitioners as presented by the Insurance Acts Committee of the British Medical Association to the Court of Inquiry into the insurance capitation fee. The proceedings before the Court of Inquiry are reported in the supplements to *The British Medical Journal* of January 12, 19 and 26, 1924.

The first thing to be considered in regard to Australian conditions is whether or not any considerable section of the community is at present unprovided with medical attendance and whether a scheme of national insurance would reach these people. Divergent views are held on this point and in its determination the conditions of both city and country must be taken into consideration. The Victorian Branch in the preamble to its *questionnaire* pointed out that the opinion of the medical profession would be formed more on the effect that a system of insurance would have on the public health both in its preventive and curative aspects than on the manner in which it would affect the economic position of individual members of the profession. In regard to this point and indeed most others, it is evident that experience of national insurance in England must weigh considerably in the minds of medical practitioners in Australia.

Here it must be remembered that conditions in Australia are not the same as those in England. Moreover, although national insurance has been in existence for several years in England, a considerable period of that time has been one of unparalleled social and economic upheaval occasioned by the Great War.

In conclusion we wish to draw attention to the résumé of evidence given by several medical practitioners in different States before the Royal Commission on National Insurance and published in this issue. This has been prepared by Dr. Newman Morris at the request of the Federal Committee. Much that was quite irrelevant has been omitted, for the question of national insurance must be decided on broad principles and not on the evidence of isolated differences between lodge doctor and lodge patient and questions of that kind. This whole subject is one which demands the careful and earnest study of each and every medical practitioner at the present juncture. Each practitioner may assist in formulating the policy to be adopted by the Federal Committee and the careless and apathetic individual who is too lazy to answer set questions that are put to him and cannot take the trouble to read informative articles on the subject, will have no right to complain at a later date if the policy of the British Medical Association in Australia does not coincide with his own views.

## Current Comment.

### ACUTE MYELOCYTHÆMIA AND CHLOROMA.

That a relationship exists between leuchæmia and chloroma has long been recognized. Chloroma has been regarded as a connecting link between leuchæmia on the one hand and malignant disease, such more particularly as lymphosarcoma, on the other. In leuchæmia an overgrowth of leucoblastic tissue occurs. Chloroma is characterized by the presence of greenish tumours most frequently found in the orbits or temporal fossæ or in connexion with the vertebræ. The masses found in chloroma are composed essentially of the same cells as are found in the blood in that condition. The majority of the sufferers from chloroma have been young persons and examination of their blood has generally revealed the presence of leuchæmia. The names of Dock, Dunlop and Bramwell are associated with the establishment of the connexion between chloroma and lymphatic leuchæmia. Domarus reported an instance of chloroma in which no leuchæmia was present. Chloroma of a myeloid type has been reported by Klein and Steinhaus, Türk and Sternberg. In this type the tumours were of a green colour, but the cells contained neutrophile granules. The changes in the marrow were those of myeloid leuchæmia and the blood contained a large number of myelocytes together with non-granular pro-myelocytes. It is not known why the green pigment should be formed in this condition. Muir has drawn attention to the fact that a similar colour may be found to a varying degree in the bone marrow of patients whose leuchæmia is unaccompanied by tumours.

Dr. Alexander Goodall and Dr. W. A. Alexander have recently reported four cases of acute myelocythæmia presenting interesting characteristics and have discussed the relationship of leuchæmia to chloroma.[1] The condition in two of their patients was regarded as myelocythæmia of an acute type, that of the third was regarded as representing an intermediate stage between leuchæmia and chloroma and the condition of the fourth was regarded as typical chloroma. In each instance the illness was acute. The clinical histories of these patients are given by the authors in some detail. It is not necessary to describe them at length. In all four instances the leucocyte count was, as is usually the case in the more acute forms of the disease, relatively low. The highest was ninety-four thousand per cubic millimetre and the lowest seventeen thousand. It was found to be difficult to demonstrate the neutrophile granules in the myelocytes. Numbers of cells which were really myelocytes, were regarded by less experienced observers as lymphocytes. Drs. Goodall and Alexander claim that such cases as these provide an argument that the myeloblast or lymphoidocyte of Pappenheim is a cell differentiated as the precursor of the myelocyte and not the immediate parent of either the myelocyte or the lymphocyte. With one possible exception there has been no record of an excess of both myeloblasts and lymphocytes occurring in a case of leuchæmia. Myeloblasts are present in every case of myelocythæmia. At *post mortem* examination of the patient whose condition was regarded as representing an intermediate stage between leuchæmia and chloroma, the para-aortic glands were found to be considerably enlarged. In connexion with several of them lying on the right side there was a growth closely attached to the periosteum covering the third lumbar vertebra. The growth was tough and of a bright green colour. The inguinal glands were enlarged and some of them were tinged by a slight green colour. The bone marrow was uniformly pale red. In the patient whose condition was regarded as typical of chloroma, double facial palsy was present. At *post mortem* examination of this patient greenish masses of tumour were found high up in the pterygoid region and in close relationship with the parotid glands. The exact relationships of these masses were not determined, but "it seemed probable" that the facial

[1] *The Quarterly Journal of Medicine*, January, 1924.

nerves were involved in them. No abnormality was discovered in the skull or brain. The pleura was thickened, fleshy and greenish. Thick greenish plaque-like masses were found on the inner aspect of the sternum and costal cartilages. A continuous nodular infiltrative tumour growth of a greenish colour was found on each side of the spine separating the aorta from the vertebral column. Small green masses were found scattered through the cortex of the kidneys. The bone marrow of the femur and the ribs manifested a diffuse leucoblastic reaction with a greenish tinge appearing in small patches. On histological examination the structure of the tumour masses did not differ materially from that of the leuchæmic infiltrations in the organs. In some of the organs were lesions whose appearance suggested causation by leucocytic emboli.

In discussing these cases Drs. Goodall and Alexander lay stress on what they regard as the intermediate stage between leuchæmia and chloroma. They state that so far as they can discover the instance reported by them is unique. The overgrowth of leucoblastic tissue which occurs in leuchæmia, suggests a process more closely allied to tumour growth than to any other condition. The existence of chloroma is a strong argument in favour of this view. At the same time they admit the possibility that both leuchæmia and many forms of malignant disease may yet be found to be the result of an infection which differs in its results from those of known animal or vegetable parasites. They are in agreement with Ewing that the ætiology and pathology of tumours has been obscured by the attempt to classify a number of totally different conditions into too definite groups. They suggest also as something more than a mere speculation that leuchæmia is closely allied to a malignant process, that both leuchæmia and malignant disease may yet prove to be the result of infections and that the former offers to the investigator a field that has not been adequately exploited.

## XANTHOMA DIABETICORUM.

Among the rare complications of diabetes is the cutaneous condition known as *xanthoma diabeticorum*. At the name indicates the lesion is characterized by yellowish swellings in the skin. Norman Walker divides xanthomatous conditions into the plain and the tuberous forms. *Xanthoma diabeticorum* may be regarded as a variety of the latter. It is found in association with glycosuria. The nodules commence as little hard swellings of a reddish colour. Later on the yellowish tinge appears. Norman Walker associates this yellow colour with the occurrence of fatty degeneration of the cells composing the nodule. The most frequent sites are the elbows, knees, loins and buttocks. With improvement in the glycosuria a gradual disappearance of the rash occurs. Exceptions to this statement have been recorded. These exceptions have included the appearance of the rash before the development of the glycosuria and the persistence of the rash after the glycosuria has cleared up.

Dr. Ralph H. Major has recently made a most interesting communication as a result of the detailed study of three patients affected by the condition.[1] He begins by reviewing the literature and includes a list of seventy-four cases which have been recorded by various observers. Dr. Major's three patients were males, aged forty-three, twenty-five and twenty-six. The first patient on admission to hospital was suffering from diabetic coma and was *in extremis*. The patient's blood serum was milky white in appearance and presented gross lipæmia. The blood cholesterol was four hundred and thirty-two milligrames per hundred cubic centimetres. The patient died three hours after admission. The second patient presented the clinical picture of early diabetic coma. The blood sugar on admission was two hundred and ninety-three milligrammes and the blood plasma cholesterol was six hundred and thirty-two milligrammes per hundred cubic centimetres. The third patient had been suffering from diabetes for three years. His blood sugar was three hundred and thirty-three milligrammes and his blood plasma cholesterol was five hundred and thirty-three milligrammes per hundred cubic centimetres. The second and third patients were treated by "Insulin." In the second patient the blood cholesterol fell promptly to normal, the hyperglycæmia and glycosuria disappeared and the carbon dioxide tension which had been low, returned to a normal level. In the third patient "Insulin" therapy also reduced the blood sugar and blood cholesterol to normal levels. Another interesting observation was made. With the consent of the third patient three of the large skin lesions on the left elbow were injected with a small quantity of ether. The nodules immediately became soft and the following day were covered by a crust. This treatment, however, caused some discomfort and was not repeated. The immediate result of the injection of ether was an increased vascularity around the treated nodules. Dr. Major points out that the use of "Insulin" clears up lipæmia and hypercholesterinæmia. As a result of his experiments with the injection of ether he concluded that the disappearance of *xanthoma diabeticorum* depends partly upon a disappearance of the lipæmia and lipoidæmia and partly upon the degree of the blood supply which permits absorption of the substances in the xanthomatous lesions.

Several of the larger nodules from the third patient were excised by Dr. Major for the purposes of microscopical study. The sections were stained by three different methods: hematoxylin and eosin, Sudan III. and Nile blue sulphate. As a result of his study of these sections he states that the nodules are composed of neutral fat, fatty acids and lipoid bodies and that they also contain cholesterol. It is not always possible to find cholesterol in these nodules. A case of *xanthoma diabeticorum* was reported in the pages of this journal in April, 1922, by Hamilton. A search was made by Hamilton for cholesterol in the sections and none was detected. The only change found on that occasion was dense fibrosis.

[1] *Bulletin of The Johns Hopkins Hospital*, January, 1924.

# Abstracts from Current Medical Literature.

## MORBID ANATOMY.

### Fatty Substances in Myelomatous Neoplasms.

G. C. Dyke (*Journal of Pathology and Bacteriology*, January, 1924) describes a myeloma of the head of the tibia containing much anisotropic fat-like material and two morphologically similar tumours from tendon sheaths. The presence in all these tumours of "foam" cells containing droplets of anisotropic fat-like substance—probably cholesterol ester—is adduced as evidence of the endothelial origin of these tumours. Although xanthomatous and xantho-sarcomata —tumours histologically characterized by the fact that their cells contain droplets of doubly refracting fatty material—have been recognized and have found a place in pathological literature for nearly one hundred years, little attention has up to the present been paid to the significance of these fat-like deposits. Kirsch has recently described two tumours either in the skin or close under it in the region of the knee-joint—one in a man aged thirty-nine and the other in a girl aged twenty-seven. The appearances were identical. They showed a basis of polymorphic and spindle cells, contained giant cells of the myelomatous type and showed large numbers of "foam" cells packed with droplets of anisotropic fatty substance. In parts they had the structure of angeiomata and there were large areas of hæmorrhage and much iron-containing pigment. In one case in which the estimation was made, the blood cholesterol was found to be greatly above normal. The cells which above all others possess the power of phagocytosis of droplets of anisotropic fatty substances and thus of becoming "foam" cells, are the endothelial cells lining the sinuses of the spleen and bone-marrow. It is, however, possessed by endothelial cells in other situations, notably those of the liver and kidney and the indications are that it is a function common to all "endothelial" cells. It is a fact that perfectly typical "foam" cells may be seen, sometimes in large numbers, in the neighbourhood of old inflammatory lesions. They are not, however, by any means necessarily associated with infective processes and are common in such sites as the cysts in chronic mastitis, the dilated vesicles in colloid goitre and in some adenomata. Their presence, in fact, merely indicates that sometimes possibly as the result of breakdown of tissue, sometimes for other reasons such as disturbance in metabolism, these fat-like bodies have made their appearance in excess and are in process of being dealt with and removed. On morphological grounds there has long been a tendency to regard the large phagocytic wandering cells as derived from the endothelial cells of the blood vessels or at any rate as closely akin to them. The possession of both the large wandering cells and the endothelial cells of the smaller blood vessels of this power of phagocyting anisotropic fatty substances seems to offer further evidence of their identity. The presence of "foam" cells containing droplets of anisotropic fat substance and of giant cells as the principal features of all the tumours described by the author affords striking testimony as to their community in kind. He points out that there is good evidence that the phagocytosis of droplets of anisotropic fatty substance is a function of the endothelial cell. This points to a common endothelial origin of all these tumours. In Kirsch's two tumours further evidence of their endothelial nature was afforded by their angeiomatous structure, while various authors have postulated the endothelial origin of the tendon sheath myelomata.

### Cancer in the Lower Animals.

Sydney Dodd (*The Journal of Comparative Pathology and Therapeutics*, December, 1923) has recently investigated cancer of the ear in sheep. He mentions that chronic irritation is accepted as being an established factor amongst the indirect causes of cancer formation in human beings, but chronic irritation is by no means universally accepted as giving rise to cancer in the lower animals, for in parts that are notoriously the subject of chronic irritation such as saddle and collar galls in horses, cancer is not found. The human breast is a common site for cancer and it is held by some that the step between chronic mastitis and cancer is short. In contrast with this it is well known that cancer of the cow's udder is rare although the gland is very frequently the seat of injuries and chronic mastitis from various causes is common. The alimentary tract is one of the common sites of cancer in man, but not in the herbivora, although the irritation by food must be far greater in the latter than the former. It is also much less frequent in dogs and cats than in man. Again, in horses and cattle carcinoma of the nictitating membrane and the caruncle is much more frequent than in any other species, including man. In Australia the condition affecting the ears of sheep and termed by sheep men "cancer" is fairly common. The author has examined forty-seven ears from the same number of sheep. Of the forty-seven ears examined nine were evidently of fairly recent origin, six were old-standing cases, but showed no naked eye evidence of malignancy, and the remaining thirty-two were well advanced and showed all the clinical characters of malignancy. On microscopical examination the nine early cases showed nothing more than a chronic inflammatory reaction. The thirty-two clinically malignant cases presented histologically the appearances of squamous-celled carcinomata in various stages and the remaining six clinically old-standing cases were what may be termed intermediate, showing great hyperplasia of the cutaneous epithelium, but no evidence of breaking away or unrestrained growth. In a sheep affected with cancer of the ear which was kept under observation for some months, it was found that metastases formed in the cervical and prescapular lymph glands. Attempts to transfer the growth by implanting fragments failed in two instances.

### Primary Carcinoma of the Lungs.

K. Playfair and C. P. G. Wakeley (*The British Journal of Surgery*, October, 1923) state that primary carcinoma of the lung, while still correctly regarded as a rare condition, is probably of more frequent occurrence than is usually admitted. The ætiology is little understood, but the fact that chronic inflammatory affections precede this type of carcinoma may be a factor of importance. The pathology is still obscure. Although many instances are readily classified histologically, many others, especially advanced forms, must remain unidentified as regards their exact origin. Instances reported from America during the past five years are very much more numerous than in Great Britain. This may be a true indication of its relative incidence in the two countries, but it is to be doubted if this is so.

## MORPHOLOGY.

### The Œstrus Phenomena in the Mouse.

Edgar Allen (*American Journal of Anatomy*, November 15, 1923) states that the œstrus cycle in the mouse usually requires from four to six days. There are two principal types of variation of the usual four to six day cycle: (i.) Instead of the rapid recurrence of a second cycle, a long diœstrus or quiescent interval may intervene, resulting in an apparently normal cycle of eight or more days' duration; there may be a continuation of œstrus, usually evident for one day or less, for two, three or more days. When data from different strains are taken together and a graph plotted, it is found that any racial or familial differences are obscured in a fairly uniform, unimodal curve. The mode falls at four and a half days. If the cycle length be plotted for different coat colours, the mode of the curve for browns is between five and six days. Albinos which in the author's stock are browns without the colour factor, have a cycle of four days' duration. The author asks whether the loss of the colour factor for brown has shortened the cycle. It is suggested that a genetic factor, possibly linked with colour factors, may be accountable for some of the variation in cycle length among different strains of mice. Attention is directed to the ova themselves as a possible cause of œstrus.

It is found that the follicles are the most important source of the ovarian influence on the genital tract in the absence of pregnancy. Under the influence of the ovum the follicle cells secrete a hormone which causes the hyperemia, growth and hypersecretion in the genital tract during the anabolic phase of the œstrus cycle. When the influence of the ovum is removed at ovulation (or atresia) there is a cessation of the elaboration of this hormone and its withdrawal allows the degeneration of the excessive growth of the preceding stage. The alternate presence and absence of a hormone from successive groups of maturing follicles is sufficient to explain the œstrus phenomena. The author isolated a hormone from the ovarian follicles of hogs and cattle which, injected into previously spayed animals, causes typical œstrus changes in the genital tract. It is not species specific, but probably common to maturing ova of all female animals.

### Cyclic Variations in Uterine and Tubular Contraction Waves.

GEORGE W. CORNER (*American Journal of Anatomy*, November 15, 1923) discusses the cyclic variation in uterine and tubular contraction waves. He refers to the fact that Keye found that on suspending strips of uterine tissue, taken from a sow killed during œstrus, in warm oxygenated Locke's solution, the contractions were large and slow. During the first few days following ovulation the contractions became more rapid and less ample, until on the tenth day they were occurring at a rate of six to eight per minute, but the amplitude was only one-tenth of the previous magnitude. At this stage the tracing presented alternating groups of very small and somewhat larger contractions, forming undulations or "beats."Keye considered that there were in isolated strips of muscle, contraction waves of two types, one type large and slow, the other small and rapid, which by superposition formed the characteristic patterns, according as one or the other type predominated. He showed further that the change in contraction type was correlated with the events of the ovarian cycle, so that it was often possible to determine the state of the ovary by inspection of the contraction wave. Pregnancy caused a definite diminution of the amplitude of contraction. Seckinger followed the contractions of the pig's Fallopian tube throughout the reproductive cycle and found that there are two types of spontaneous contraction waves. The first is present at all stages of the cycle, except a few days just before and after ovulation. During œstrus this gives place to the second type which is much more rapid and shows small and large excursions. The resultant tracing resembles in miniature the undulatory pattern seen by Keye in the uterus at a later stage of the cycle. Seckinger found that the contraction type was accurately timed to cover the period during which the ova were passing through the tube. There is thus a variation in the rhythm of spontaneous contractions of the uterine and tubal musculature during the œstrus cycle. The undulatory contractions appear in the tube just before the discharge of the Graafian follicles and persist during the three days' time in which the ova are *en route* through the uterus. The time of appearance of the undulatory contractions in the uterine musculature is synchronous with the period in which the ova, lying free in the uterus, either degenerate or begin the blastocyst stage of development. Upon the basis of these facts there has been developed the hypothesis that the uterine and tubal contraction cycle represents a mechanism probably peristaltic in Nature, by which the ova are transported through the tubes and uterus.

### The Lymphocytes: Splenectomy in the Frog.

H. E. JORDAN AND C. C. SPEIDEL (*American Journal of Anatomy*, September 15, 1923) using histological methods find that hæmocytogenesis occurs in the following tissues of the frog: The spleen, intertubular connective tissues of the kidney, connective tissue of the intestine and red marrow of the long bones. In the tadpole stage the kidney is the chief site of the hæmopoietic function and the spleen is of minor importance, whilst in the adult frog the spleen is practically the sole centre of activity, except immediately after hibernation, when the red marrow occurs in the long bones. The lymphocytes of the spleen act as hæmoblasts and give rise to erythrocytes, granulocytes and thrombocytes. The phagocytic function of the spleen is served by macrophages and lymphocytes. The macrophages digest senile erythrocytes, granulocytes and thrombocytes. Eosinophile cells are derived from both lymphocytes and connective tissue cells, passing through a basophilic granulocyte stage. Persistent basophile cells with angular granules represent abortive eosinophile cells in which the unripe granules suffer regressive changes. Eosinophile cells pass through the walls of the intestine into the lumen and disintegrate among the fæcal material therein. Variable numbers of enucleating and non-nucleated red blood corpuscles are found in the spleen. Platelet-like hyaline bodies are produced by pseudopod formation and subsequent fragmentation. The effects of splenectomy, hæmorrhage and injection of a hæmolytic toxin were tested experimentally. Splenectomy resulted in regeneration of spleen tissue. Experimental hæmorrhage and the injection of saponin stimulated the spleen to greater hæmopoietic activity and in cases where the spleen became exhausted and death ensued, it was found that the spleen consisted largely of reticular structure with extensive disintegration of the lymphoid hæmoblasts. When the spleen was able to respond, nodular areas, germinal centres for lymphocyte production were seen on sectioning. Neither experimental hæmorrhage nor the injection of saponin stimulated the quiescent bone-marrow to myeloid hyperplasia nor the connective tissue of the kidney and intestine to myeloid metaplasia.

### The Cause of Twinning and Abnormal Development in Birds.

OSCAR RIDDLE (*American Journal of Anatomy*, September 15, 1923) following on the work of C. R. Stockard, published in 1921, has made an investigation into the causes and production of abnormality and twinning in the eggs of pigeons and ring doves. Two thousand embryos were subjected in post-laying stages to low temperatures, increased or decreased oxygen pressures or to carbon dioxide. Two hundred and thirty embryos of from four to twenty-four hours' prematurity were subjected to cold before or during gastrulation. A higher percentage of abnormalities was produced by high concentrations of carbon dioxide than by other methods in the early stages. Increased oxygen concentration, decreased oxygen and cold were less effective. It was also observed that, if the first two or three days of post-laying development were divided into twelve-hour periods, the embryo was more sensitive to carbon dioxide and increased oxygen during the first such period, whilst in later stages low temperature had a greater effect. To explain these results the author advances the theory that, not only retardation, as shown by Stockard, but acceleration of development at certain stages will cause abnormalities to appear. Stages which may be "critical" for a retarding agent, may be "indifferent" for an accelerating agent and *vice versa*. He shows that by this means eight cases of twinning found in twenty thousand incubated eggs of doves and pigeons may be explained. Records kept for this series of eggs showed that the eight cases of twins resulted from eggs which might be divided into two classes: (i.) Five were from eggs heavier than normal and (ii.) three from eggs of smaller size than normal. Other experiments render it probable that large yolks were present in the large eggs and small yolks in the small eggs. If the large yolk indicates a slow rate of metabolism (even when leaving the ovary, at which stage the yolk size is determined) this will account for a retarded development and hence twinning can occur as shown by Stockard. In the case of the small yolks the metabolism is probably more rapid than normal and so development is accelerated. But Stockard has shown that abnormalities and double formations proceed from similar causes, so the author holds that it is not unreasonable to suppose that the small yolk twins were produced by an acceleration since acceleration of developmental rate may produce abnormalities and presumably, if applied at the correct stage, twins.

# British Medical Association News.

## MEDICO-POLITICAL.

The Federal Committee of the British Medical Association in Australia at its last meeting requested Dr. J. Newman Morris to make a résumé of the evidence given by certain medical practitioners before the Royal Commission on National Insurance. Dr. Newman Morris has completed this work and the résumé is published hereunder.

Dr. C. H. E Lawes considered that the benefits provided by friendly societies in New South Wales combined with hospital facilities were adequate for the requirements of the average member of the community. He could not suggest any extension which would be beneficial to the community generally. The hospital facilities would probably need to be extended in the near future, but if that were done he thought that the hospitals and friendly societies between them could quite well attend to the needs of the public.

He considered the present arrangements with regard to maternity allowance and attendance to be satisfactory.

There were some towns in out-back districts where it would not pay medical men to take lodge patients under the present rates. These towns had a small population (2,000) and freights were high and expenses heavy. If the great bulk of the population had to be attended at contract rates the medical man could not earn a living.

In reply to a question as to what sections of the English *Act* were not applicable to Australia, Dr. Lawes said that the British Medical Association had not formulated a definite policy with regard to national insurance. His own personal view was that such a scheme was unnecessary in Australia. Where a definite section of the population was unable to get medical attention such a scheme was a good one; but where machinery existed which enabled every member of the community to secure it, there was no need to formulate a new scheme. He considered that everyone in New South Wales could get medical attention, either by paying private fees, by belonging to friendly societies or by accepting the hospital facilities available. That being so, a scheme of national insurance was unnecessary.

With regard to the national insurance scheme of Great Britain, he was familiar with it in a general way. The amount of clerical work involved, the returns and official correspondence, pressed heavily on the general practitioner. It took up a lot of his time and was very irksome work to which he was not accustomed. He could not suggest any scheme whereby a national insurance act in Australia could get over the difficulty, because the bigger the scheme grew the more it grew. He could not say whether any sections of the English *Act* were not applicable to Australia as he had not considered that point. He did not think that the British Medical Association anticipated any special difficulty that they would like to bring under notice of the Commission. He thought that as a matter of fact from a financial point of view the medical practitioner would benefit by the national insurance scheme. He did not know any better scheme than the panel system, but considered that in Australia the present friendly society scheme was preferable. In New South Wales all the lodges had an open panel, the policy of the friendly societies being to elect every member of the British Medical Association in a district a medical officer to the lodges. He preferred the present system to the English scheme. There were only two parties to it, the medical officer and the lodge, whereas in the English scheme there were two or three people to the contract. He thought that friendly society work was profitable in most localities. The members of the British Medical Association generally were desirous of retaining the present arrangements with friendly societies. Matters have never gone so smoothly between the British Medical Association and friendly societies as they had since the Common Form of Agreement came into force.

The maximum number of members that one doctor could satisfactorily attend *per annum* was a matter of opinion. He would say one thousand. He was not prepared to say that he was in favour of an arrangement whereby the doctors would be grouped together for purposes of consultation.

Sickness was fairly general to all members of friendly societies and not confined to a certain group. He had practised in a copper mining district for five years and did not think the average amount of sickness had been greater there than where he was practising. Certain diseases were more common in certain localities and in certain occupations.

The present arrangements of the Government for preventive treatment could be improved if more money was spent.

He had not seen a large amount of malnutrition amongst the children in his district, nor did he think it was general in Sydney. He was quite sure that malnutrition amongst children did not prevail to any such extent that it did in England. In the course of his work he would notice any marked evidence of malnutrition. Miserable ricketty children were not seen about Sydney; on the whole they were a healthy class.

The provisions available for effective hospital and sanatorium treatment could be considerably increased with advantage, if money were available. There could be more team work in hospitals and money would be much better expended in that way than in formulating a new scheme of medical attendance. The methods existing in the Mayo Clinic, at Rochester, could with advantage be extended in Australia. If Parliament in its wisdom decided upon a national insurance scheme for Australia, the most desirable basis for the payment of the doctors would, he thought, be a capitation basis as in England. He had not considered what would be a satisfactory rate of payment for Australia. He did not consider that under such a scheme the wage earner would be better provided for than at present. It would probably cost him more, if he had a family.

He had not considered what would be a desirable board of administration for a national scheme, but all sections of those interested should be represented on it.

He would not favour any scheme of whole-time service being given to the Government. The public would not get as good a service under such a scheme as they get at present. The work of the medical man would be of a routine character and would deteriorate.

There were a sufficient number of medical men offering for lodge work and he did not think there were many of the previous year's graduates in want of positions.

The British Medical Association would be willing to agree to doctors who were not members of the British Medical Association taking part in a national scheme, if they were reputable members of the medical profession.

Dr. T. W. Lipscomb considered that the benefits provided by the friendly societies in New South Wales were quite adequate for the requirements of an average member of the community. It was a very good service. The benefits did not cover invalids. Candidates had to be passed by a medical officer on joining a lodge. The rates paid in New South Wales were very reasonable and fair for the wage-earning community and were satisfactory to the medical profession.

With regard to the attitude of the British Medical Association to any scheme of national insurance, he said that at the time when national insurance had come into force in England the country was saddled with many poor laws *et cetera* which were very degrading to many people. National insurance was a very dignified and good effort to overcome the difficulties and it had to a large extent overcome them. But the community in New South Wales was at present well served as regards medical attendance, by private arrangement, through lodges or through outpatient departments of hospitals. No one ever wanted for medical attendance. He was familiar in a general way with the provisions of the *National Insurance Act* of Great Britain. The New South Branch of the British Medical Association had not considered that *Act*. Once

the *Act* came into force in England, although the British Medical Association had not been consulted, its members had thrown themselves into the scheme, as decent citizens, to make it run smoothly and to improve it in any way possible. He could not say whether any sections of the *Act* were not applicable to Australian conditions. He thought that in such a widely scattered community the expense of administering a scheme of national insurance in Australia would be a great difficulty. The Common Form of Agreement with friendly societies was very inexpensive to work. Present arrangements were quite adequate. The adult membership of lodges in New South Wales was 200,000 and each one represented 4.2 persons. There was not a huge percentage of the population unprovided with direct medical benefits. He did not know of any class which was without skilled medical attendance by means of hospital out-patient departments, clinics or arrangements of that description. Inverell was the only large town where doctors were not working with the lodges. They treated lodge members at reduced fees. There were small towns where the doctor would not take lodges except at higher rates.

He did not think that sufficient work was being done in Australia to safeguard public health. The public health authorities of both the Commonwealth and the State ought to be very much extended in many ways. He thought it would be wise for the Commission to recommend to the Government that a board of medical experts should be appointed to inquire thoroughly into the whole of the circumstances surrounding the health of the community, what measures should be taken to deal with, say, occupational diseases and such like, leaving the question of national insurance for the Government to deal with from an unemployment point of view. There were two sides to the medical services: the preventive side which was really the public health side and the medical service side—the treating of sick people.

The two aspects were separate and distinct. The medical profession as a whole was very keen on the preventive side of medicine. At the last Medical Congress in Melbourne that aspect had been dominant. If the medical profession were to receive an invitation from the Commonwealth Government to make a thorough investigation into the question of the health of Australia, it would help in every way possible. Medical practitioners were always open to give advice and help in proposals for improving the health of the community.

On the question of the restriction of the activities of the Commonwealth to national insurance for unemployment, he thought the general population was well served at present by the ordinary services of private practitioners, lodge practitioners and hospitals. The medical profession was prepared to assist with advice. The benevolent societies were assisted, the doctors seeing the poor patients without charge and advice being given as to whether they should go to hospital. He did not think there was any need of Government control from the point of view of individual service to individual persons. He was in favour of roping in the medical profession compulsorily to the Health Department. At present the medical profession was compelled to report a case of infectious disease and should be compelled at a reasonable or modified fee to examine all the contacts in the house. He thought the medical profession would welcome such compulsion. It would be one of their duties as citizens. He did not say that if national insurance were effected that he thought it would be necessary to give compulsory powers to the Government in connexion with the medical practitioner. The Government could not compel him to take insured persons if he did not want to. Out of fourteen hundred doctors in New South Wales about five hundred did contract work. The others did not want it. In a scheme of national insurance it would be necessary to have some provision to control the charges of the medical profession, once it applied to the insured person and a doctor said he was willing to take insured persons. It would then become a matter of negotiation. This would not interfere with the powers of the British Medical Association and the Association would not become extinct. The British Medical Association was primarily a scientific body. Lodge practice only came into its activities as a side line.

Asked whether the periodical medical examination of men over the age of forty would prevent a lot of disease, Dr. Lipscomb said he thought it would help. American insurance companies were adopting that practice very largely, examining their policy-holders free of charge every two years. The Temperance General Society in Australia suggested a periodical examination every five years of policy-holders of £500 upwards. If they were found to be diseased, they were advised to see their own medical officer. If men were so examined, he thought it would be a very great economic gain to the community. Asked if national insurance would cover the position, he said it did not do so in England and no other national scheme of which he had read had done so. Although national insurance schemes were in their infancy and Australia had often blazed the track for other countries, he thought the money could be best spent in other ways first.

A man earning up to £260 a year was eligible to join a lodge for medical benefits. Men with incomes over that amount were examined as candidates for ordinary sickness benefits. Most people joined lodges for the medical benefits. The fraternal element was dying out. Persons joined for what they could get out of the lodges. Men mostly joined for medical benefits at an early age.

Asked whether he did not think the income limit of £260 should be raised, Dr. Lipscomb said that no complaints had been received from the lodge secretaries.

On the question of the number of lodge patients a doctor should have on his list, he thought that in ordinary times twelve hundred to fifteen hundred could be easily handled. It depended on the radius in which a doctor worked. He had when in lodge practice reduced his list to five hundred. He did not think that he had been through a year without seeing one member of a family on his list at least once or twice. Friendly society practice did enable a doctor starting in a district to establish a practice. It was an introduction to a certain class of people. A certain amount of private practice was obtained from the lodge patients, but it was not very much. A young doctor had to wait a good while before he got much of a list.

Australia was the only country which had a family rate for attendance on lodge patients. The rate in England was per individual—male, female or child. A lodge member in Australia meant 4.2 persons. Payment at the same rate by single members, females and juveniles, levelled the payments by married members with dependants. There were only two orders in New South Wales which sought female members and they did so for propaganda purposes. Only about two orders took juvenile members. The girls paid half contributions and received half sickness benefits. If they wanted full benefits, they had to pay full rates. He thought that single female members of lodges demanded a lot of attention, more than single men.

He did not think that a national insurance scheme based somewhat on the British model was necessary in Australia in regard to medical service. Asked if he had not heard of people who had lost members of their family because of the cost of calling in a doctor for consultation, he said that he had heard of people putting off having attendance because they did not consider the case was sufficiently urgent. There were people who wished to save the expense, but that did not mean that there was not the service. The same thing happened even in lodge practice.

He thought the present arrangements with regard to maternity allowance and attendances from the lodge point of view were satisfactory. He would like to see a great many more women avail themselves of medical help in cases of maternity. It had not been his experience that since the maternity bonus came into vogue a considerable percentage had been added to the number of women who availed themselves of medical help.

On the question of the average number of visits per lodge member *per annum* he would say that out of one hundred lodge patients there would be from two to four visits to houses per day. Attendances at the surgery would vary. He knew of no better service than that given by friendly societies in New South Wales. He considered the rate of twenty-six shillings and thirty-two shillings a fair one.

Asked if he was in favour of an arrangement whereby doctors would be grouped together for purposes of consultation, such as under the *National Insurance Act* of England, he said that it was done in Australia by the hospitals. He had never known a consultant who would not meet a patient's circumstances. The present system was very satisfactory and was a good service, covering all classes of the community. There was no necessity to extend it from the point of view of medical service as distinct from public health. He was not in a position to say if sufficient provisions were available for effective hospital and sanatorium treatment. At certain times hospital accommodation was over-taxed. A ratio had been arrived at for the number of hospital beds in relation to the population. It would be for the hospital managers to say if that had been added to as the population had increased. Asked if he thought that under a scheme of national insurance where hospitals and sanatoria would come under the jurisdiction of a joint committee, assuming the British Medical Association would be members of that committee, a very material alteration would take place in regard to team work in the various hospitals, he said that all the hospitals carried out team work and the work was very well done. He knew the scheme of the Mayo Clinic and similar schemes were at work in Australia, for example at the Royal Prince Alfred Hospital. A patient went to the out-patient department, possibly suffering from tuberculous complaint. He was X-rayed, his sputum was examined, his nose was examined by a nose specialist, his chest by a chest specialist. The reports come together and were correlated. That was done in all the big institutions attended by an outside specialist staff. Asked if he was understood to say that the Government was sufficiently liberal to the hospital to keep all these departments in an efficient order to attend to the multitudes of patients who went there for a *régime* of that description, he said that all patients went through the routine necessary, every patient would not require an X-ray examination. The Government had been good to the bigger hospitals because they did that work so much for the outside public. He thought that the cost of administration under a national insurance scheme would be greater than at present. He thought that the doctors would be prepared to carry on the work under a common rate under a national insurance scheme for the same class of the community, if the terms and conditions were the same. If the Government decided that a national insurance scheme should apply to wage earners in receipt of £7 a week and over, the doctors would ask for an increase on the present rates. Such a scheme would add materially to the numbers whom the doctors had to attend. He had not figured out the addition to the numbers. Asked what would be a desirable board of administration for a national insurance scheme, he said he was not prepared to express an opinion.

On the question of a scale of fees, the British Medical Association had no scale for private patients. There was practically no common scale as far as the profession was concerned. There had been one about forty years previously. The only scale of fees was for life insurance examination. Asked if there were plenty of medical graduates available for work under a scheme of national insurance or lodge work, he said there had been an increased number turned out during the last two years from the Universities of Sydney and Melbourne, but they were peak years on account of men coming back from the war. Asked if 60% of those who came through last year, were in practice, he said a great many of them were in hospitals. He would not say beyond that. The British Medical Association would agree to doctors who were not members of the British Medical Association taking part in a national insurance scheme. As far as he knew no doctors who were doing lodge work outside the Common Form of Agreement were acceptable to members of British Medical Association in consultation. The interests of the patient were, however, paramount. If a patient was desperately ill and needed skilled attention urgently, it was the practice of members of the British Medical Association to see him. There were no particulars that he would like to bring before the Commission that had not been elicited by questions.

Dr. R. H. Todd, on being asked if the benefits provided by the friendly societies in New South Wales were adequate for the requirements of an average member of the community, said that the service was an excellent one, giving a very good general medical practitioner service to the people. He thought that a great deal could be done to improve the conditions of medical practice on behalf of the industrial classes and classes beyond the industrial ones. Medical attendance had become very expensive and there was a great deal required. There were many means of diagnosis which had not previously been in existence and there were many means of research required in connexion with diagnosis and attendance which had not been required years ago. Access to those services for the necessities of the people had somehow to be arranged. Team work had been spoken of. His view and that of many others was that coordination between practitioners must be elaborated and the services of those auxiliary sciences must be made available for the medical attendance upon a patient. As far as Macquarie Street practice was concerned, they were available. A patient went to a doctor and that doctor had to find out what was the matter. Before he could know, he had to exhaust the resources of his inquiry. He might require to examine the secretions. He might be able to do that himself or he might require assistance. There were secretions from the man's stomach, from his mouth and there was the urine and all those things. Then in other cases it was necessary to take an X-ray picture or the doctors might wish for a report on the man's throat, his nose, his eyes or his teeth. All those things were necessary in order to know properly what was the matter and how to deal with the patient. Those services should as far as possible be available for every sick person. It was going to take a long time to organize everything, but the Association had been encouraging the movement very much so as to avoid centralization in Sydney. The Public Health Department was very good. It examined all diphtheria swabs, sputum *et cetera* for practitioners all over the State, but was rather far away for some of the places. They hoped that in time centres such as Orange, Bathurst, Goulburn and the northern towns would have research laboratories to conduct all the examinations and for these auxiliary means of diagnosis. He thought that all the hospitals should be provided with those means and they should be available for every medical practitioner at very little expense. To some extent they were available, as at the Royal Prince Alfred Hospital and the Public Health Department. A sample of spinal fluid coming from Moree, for instance, would not be much good. When they had tried to get spinal fluid from the camp at Liverpool, they could not be brought even to Sydney. They were exceptionally delicate. When the time came centres would be available all over the State for everybody. He thought that if the Commission could take something like that into consideration, it would do a very good service.

A good deal of preliminary work had been done. This matter had been handled by the British Medical Association some years previously and it had been handled ever since. Matters had been considered and representations had been made to the Government. Much had been done in the States, but most of the work has been done by the Federal Committee of the British Medical Association. Representations had been make to the Federal Government in 1920. He had a copy of the report which had been sent. It stated:

1. That the Commonwealth Government, in giving effect to the declared policy, could most advantageously approach its purpose through the avenues of local investigation and research, with local campaigns to demonstrate the efficiency of modern methods of preventive medicine.

2. That local campaigns of control of infectious diseases in association with existing State health machinery should be undertaken with the object of elucidating the principal factors concerned in the spread of such diseases as diphtheria, typhoid, tuberculosis in Australia and with the object further of arresting their spread wherever posible by the application of know or ascertained methods of control, extending the principle now in operation in connexion with hookworm eradication in Australia.

3. That the Commonwealth should extend the present practice of subsidizing venereal diseases control and

subsidize also State expenditure on infant welfare work and State expenditure on maternity hospitals and maternity wards.

4. That the Commonwealth should undertake the systematic investigation into the causation of infant deaths during the first month of life.

5. That, in order to give full recognition to the national value of public health and in view of the Australian mandate over the Pacific Islands and to insure a progressive policy in accord with modern knowledge, it is highly desirable that a Commonwealth Department of Public Health be created, with a professional permanent head, under the control of a minister for public health without other portfolio. The Federal Committee suggests that the importance of preventive medicine warrants the creation of such a ministry of health.

6. That, inasmuch as the functions of the general medical profession, as enumerated in the resolutions of the Federal Committee of the British Medical Association —submitted to the Acting Prime Minister in July last— cannot be brought into full operation without legislation, a commencement be made by—

(*a*) The creation of an advisory council of members of the medical profession outside of the public service, who shall confer with the permanent head of the Department of Public Health on matters on policy in relation to the prevention of disease;

(*b*) Enlisting, whenever opportunity offers, the assistance of local medical practitioners in the conduct of local campaigns of prevention of disease;

(*c*) Endowing chairs of preventive medicine in the several State universities.

7. That, in order to insure successful development of the policy of Commonwealth cooperation with the State Governments for the furtherance of public health, it is desirable that—

(*a*) A central establishment for investigation of preventible diseases working in association with existing institutions in each State and branch establishments for research at such necessary places as are without State establishments, be instituted;

(*b*) Laboratories should be provided at all principal ports and at other centres, with adequate facilities for the examination of all specimens sent by medical practitioners in the surrounding districts, especially for assisting the diagnosis in cases of quarantinable diseases such as cholera and plague. By arrangement with State Governments a great amount of valuable work could be done by these laboratories in connexion with the administration of State Health Acts;

(*c*) The Public Health Department should have a medical staff specially trained in field research and laboratory research.

This policy is similar to that which has been followed in the United States, where the Federal Health Department has consistently pursued the policy of working in conjunction with the State Health Departments.

The Federal Committee urges upon the Prime Minister that progressive work in the domain of preventive medicine can only be expected when the salaries offered are such as to offer the prospect of a satisfactory career to the better class of young medical graduates; the present rates of salary are too low.

They would see that the report covered a great many matters and he thought that it would be very helpful to them in considering the fundamental questions at issue in any matter of public health organization. It dealt with public health service, but not with preventive or curative medicine. That was another branch of the subject. He might say that for some time the Federal Committee of the British Medical Association had had under consideration a memorandum in regard to curative and preventive medicine. At the last meeting the matter had been referred back to a sub-committee for further development and the Federal Committee would probably have it before them in the following month.

A copy of that report would be sent to the Government as soon as it was passed. It dealt with a number of matters concerning the relations of the medical profession generally to the question of public health. Asked if he thought that the rates could be increased if the benefits were accordingly extended, he said he did not see how that would work very well unless he knew what benefits the Commission had in mind. The service was a general practitioner service and coincided with the panel system under the *National Insurance Act* of Great Britain. Rates were fixed for the protection of the doctors and not for the sake of emolument beyond what was necessary. The extension of the panel system to the specialist panel service no doubt could be done. Asked if he thought the present medical services were sufficient for the requirements of the community, Dr. Todd said he thought they could be improved a good deal, but did not think there was anyone without medical attendance, between the hospitals, the friendly societies and medical practitioners. To say that it was adequate was another matter. He did not know of any class in the community which was not provided for in regard to medical service. He thought probably the benevolent institutions could give the information and that in every community there were some people who were not reached. There might be some people who found a great deal of trouble in getting into benevolent institutions, whom the Government were compelled to put into hospitals, but if that position was properly recognized it should be met. Asked if he did not think that it would be met by national insurance, Dr. Todd said there was no need to upheave the world to meet a comparatively small matter like that. He did not know if it would be met by national insurance because only wage earners were able to participate in that. There were thousands of people in England who were still being cared for under the poor laws. He did not know of a class in the community not provided with medical comforts, though very likely there were isolated instances of the kind. The Government and the people were crying out for an extension of the hospitals which was only a matter of expense.

The British Medical Association had never formulated any attitude towards a scheme of national insurance. In England they all accepted it and he did not know why they could not do so here, although, personally, he should be sorry to see it. He did not think it was suited to the temperament of the British people, still less to the Australian people. It was a German idea of dragooning and regimenting people into forced relations with each other which they did not want. He thought it would involve a tremendous burden of administration. In England hundreds of people spent their time in going to committees and making reports which needed men of leisure. They had in Australia a system which was working naturally without trouble and expense or worry, but if they had national insurance, the doctors would have to organize in a way that they had not done hitherto. Instead of looking upon this service from a benevolent aspect, it would then be purely a matter of business and the relations between them and their patients would be changed. In his opinion it would be a wrong step and ought not to be undertaken unless it was necessary. He was familiar only in a general way with the *National Insurance Act* of the United Kingdom. He did not suppose that anybody knew it too well. It was most complicated.

Asked if the British Medical Association in Great Britain had found any section or sections of the *Act* operating harshly, Dr. Todd said he did not know. He had looked up the *Act* to see if he could pick out any sections, but there were very few which touched health insurance. The *Act* was very voluminous. He had heard that the doctors in England were pleased with the *Act*, but it seemed to him to encourage a mediocre practice rather than a higher one.

The members of the British Medical Association were pleased with the present service, thinking it was a good one. They did not like to see it upset, but if national insurance was introduced, it would get the support of the profession. His own advice and that of many people to whom he had spoken, was that there was no necessity for medical attendance insurance in the State such as

existed in Great Britain. The present conditions might be improved very materially for the people, without doing anything revolutionary.

Of fourteen hundred members of the British Medical Association in New South Wales, five hundred and sixty did friendly society work. The Government might get more than that to do national insurance work. The emoluments would be very much better. It would be a matter of bargaining without the benevolent element which obtained in friendly society business.

It was very difficult to say what was the maximum number of members one doctor could attend to satisfactorily *per annum*. Some doctors could attend a great many more than others because of their methods, their temperament and that kind of thing. He though one thousand was a fair number which involved four thousand risks, and if a doctor had midwifery to do, he probably had a hundred confinements. He considered it a strenuous life to be at the beck and call of four thousand people and there would be a great deal of expense in motor cars, chauffeurs, attendants, secretaries *et cetera*.

They had no data with regard to occupational or locality sickness; that was left to the statistician and health department.

He did not think that sufficient provisions were available for effective hospital and sanatorium treatment. A great deal might be done in encouraging private hospitals. Such hospitals were very expensive to run and the fees for nursing and management were high. With others he had given a good deal of consideration to the question of establishing large private hospitals, where people could be taken as cheaply as at public hospitals, but the cost of even the public hospitals was high. It was much more than £3 per week per bed. The figures per bed for some of the small hospitals were appalling. He would not like to say what would be a desirable board of administration for a national scheme, if Parliament in its wisdom decided to introduce one. He had not sufficient data available.

Any questions on which the Commission desired advice would be placed before the Federal Committee of the British Meical Association and referred to all the Branches of the Association in Australia.

Dr. David Croll, President of the Queensland Branch of the British Medical Association, considered that the benefits provided by friendly societies in Queensland were adequate for the requirements of an average member of the community, so far as general practitioner work was concerned, but for the treatment of serious illnesses, operations, diseases requiring special treatment and hospital accommodation, nursing, massage, X-ray treatment and pathology they were not. The extension of friendly society benefits to include the work he had named might be done to a certain extent, but it would be too big a task for friendly societies. The defect in the lodge system in Australia and the insurance scheme in England as operated at that time, was that there were many aspects of medical service such as pathology, X-rays, treatment of serious diseases, operative treatment and hospital accommodation for which no provision was made and which pressed more heavily than anything else upon the thrifty members of the community who do not care to avail themselves of charitable institutions. No provision was made for the treatment of lodge members suffering from typhoid fever, tuberculosis, syphilis, diseases which were of vast importance from the point of view of national health. Those diseases were not specifically excluded by the agreement with friendly societies. A lodge doctor would call on those patients in a private house, but he would very seldom undertake to treat them there. He would have them sent to a hospital. He had drawn up a list of diseases taken from the index of a common work on medicine and in one group he had placed the diseases that would probably be treated by a lodge doctor and in the other the diseases which would probably not be treated by a lodge doctor, but would be sent to a hospital or elsewhere.

The diseases which would probably be treated by lodge doctors were: Influenza, rheumatism, gastritis, dyspepsia, diarrhœa, constipation, jaundice, catarrh, croup, asthma, bronchitis, pleurisy, whooping cough, measles, mumps, dengue, tonsillitis, sciatica, chronic heart disease, convulsions, boils and abscesses, minor wounds and injuries. The diseases for which special or hospital treatment was probably required were: Typhoid, diphtheria, meningitis, scarlet fever, infantile paralysis, pneumonia, tuberculosis, syphilis, diabetes, appendicitis, lead-poisoning, cancer, acute nephritis, Bright's disease, goître, paralysis, acute heart disease, insanity, surgical diseases, afflictions of the eye and ear.

The second group included all the most important diseases and he wanted to emphasise that that was beyond the scope of the lodges. He did not think that the diseases were so divided under the British scheme of national insurance. The panel doctor carried out very much the same duties as the lodge doctor in Australia. A person suffering from tuberculosis should be sent to an institution. A doctor could treat cases of typhoid and scarlet fever at home but he would not be likely to do so. Some of the diseases he had mentioned, could be treated at home, but it would mean a very heavy burden on the people concerned, *exempli gratia* in case of typhoid, a nurse would be necessary. His division of diseases was only to give the Commission some idea of what a doctor would probably do.

He considered the present rates and contributions fixed by the lodges adequate and fair. He thought on the question of increasing rates to extend the benefits that a separate rate for the more serious cases would be better. An adequate rate would depend entirely on what was included. He had not considered whether a wage earner should contribute towards the benefits, or whether the whole burden should be borne by the State.

The maximum salary fixed in Brisbane under the agreement with friendly societies was £400. In some of the country centres it was £208. The agreement covered general practitioner work only and no arrangement was made for special services to the performed. He did not think the present arrangement with regard to the maternity allowance and attendance to be satisfactory. He thought that maternity cases required more assistance in the way of nursing and hospital accommodation than was available. There should be a number of small maternity hospitals scattered about which people could reach easily from their own homes. A hospital with a daily average of ten beds could be run on sound lines at a charge of about three guineas a week, exclusive of medical fees.

On the question of the average number of visits paid per member *per annum* in lodge work, the statistics he had collected showed that from ten to fifteen visits per member *per annum* were paid. That referred to the whole membership list and not per sick member. On the whole he thought friendly society work was not profitable if it was done properly and the doctor gave to it the time and attention he should. That was where the income limit came in. They realized that there was a certain proportion of the community on whom medical fees would bear somewhat heavily, especially in cases of serious illness. If they took those at the rate of 24s. a year it was profitable because if they were sick doctors had to attend them and should not be able to charge the ordinary fee. Probably doctors would not charge them the ordinary fee because they would know they could not pay it. On the other hand friendly society work at a smaller rate meant a regular income and when attached to other work was good enough. The main difficulty was that one was working on two entirely different rates and it must be adjusted in some way. They had three alternatives: First, working on the ordinary principles of trade one would naturally suppose that for a lower fee one would give an inferior article. To that the British Medical Association was absolutely opposed. Secondly, that the lodge work should be done by a lower grade of practitioner. Lodge patients would then get incompetent men who could not make a living at other work and the majority of whom would be those who had started and had been doing it for some years, with the result that they could not do better work. They considered that that would not be in the best interests of either the lodges, the public, or the profession. The third alternative was to let doctors take private patients and lodge patients. They did not encourage them to take a large number of the latter. They should treat them exactly the same as private patients and give their very best skill and care; but, in consideration of the fact that they were

not able to pay the ordinary fees, undertake their work at a different rate. That was their present solution of the difficulty and they though it was better than the other alternatives; but they were open to accept an improvements that could be suggested.

The maximum number of members that one doctor could satisfactorily attend *per annum* in addition to his own general practice would vary according to the man. Dr. Croll's own personal opinion was (others might disagree with him) that three hundred would be the most. He would not even take three hundred in the circumstances mentioned in his third alternative. Lodge work could not be made profitable if well done. A man might have a number of lodge patients, he might have his waiting-room full and his one object to get it empty as quickly as possible; but that was not practising medicine. Or, he might start on his round and visit every house, to get out as quickly as he could. In that way he could make a good income with a large number of members; but in a few years he would be quite useless in his work and unfit for other work. The idea of grouping doctors together for purposes of consultation obtained in America; they had not any experience of it in Australia, but it sounded quite feasible.

Asked if the British Medical Association had any data regarding occupational or locality diseases in Queensland, he said there were very few occupational or locality diseases in Queensland. Taking Ipswich, for instance, there seemed to be nothing there in the way of occupational disease. One doctor had suggested that rodent ulcer was prevalent amongst station hands owing to their constant exposure to the sun. There was hookworm in Australia and a mild type of malaria in the north. He did not think malaria was increasing. The British Medical Association had no objection to its members acting with non-members.

Asked as to the practice in Queensland to combat the ravages of venereal diseases, he said that was dealt with by the Commissioner of Health. Every case had to be notified (without the name) and there were clinics established by the Health Department for their treatment. The Health Department had regulations dealing with and were making efforts to control prostitution. They worked independently of the British Medical Association, having their own medical officers.

Dr. Croll then referred to the evidence of Dr. Halford with regard to maternity matters. He enumerated the advantages of a hospital or properly conducted nursing home as compared with remaining at home, in maternity work, as follows:

1. If any complication arises a woman is undoubtedly better off in a hospital.
2. If there is uncertainty as to the date and this may easily be three or four weeks, she need not be paying a nurse for waiting time or find the nurse engaged in another case.
3. A normal labour, if left alone, will probably do as well at home as in hospital, but women in modern days demand that something be done to alleviate the pain and that can be accomplished much more effectively and safely in a hospital than in a home.
4. It is much easier for the doctor to keep the staff of a hospital up to a high standard of efficiency than to do the same for a dozen nurses scattered over the district and changing frequently.

He was not in favour of the administration of anæsthetics by nurses. Administration of anæsthetics if properly conducted, generally appeared simple—most things did in experienced and skilful hands—but if anything went wrong it was far from simple.

He thought the standard of midwifery to be far below what it should be, the causes in his opinion being: (i.) The tendency of some doctors to hurry a case instead of leaving it to take its natural course. In this they were generally aided and abetted by the patient and her friends; (ii.) the tendency of medical men to give up midwifery when they became proficient therein; (iii.) improperly conducted hospitals and nursing homes; (iv.) careless or improperly trained nurses; (v.) attempting to nurse complicated cases in unsuitable homes. He thought most medical men would agree with this summary. With skilled medical attendance in well-conducted hospitals, the mortality and morbidity would be low enough to satisfy the most exacting critic. The policy of having maternity wards attached to general hospitals had come before the Council of the British Medical Association in connexion with the Government's scheme of attaching maternity wards to country hospitals. A lot of men thought they ought to be entirely separate, but the Council was in favour of the Government's scheme because they thought that in the smaller hospitals they would get far more efficient service if the two were together and they could have a better staff than it would be possible to have in two small separate hospitals. It would more than equalize the risk from the two hospitals being together. That was the practice in private hospitals in Brisbane where there were mixed cases and provided the hospital was properly run there would be no danger. There would be more danger in having two small indifferently run hospitals. It might be taken as a general principle that the ordinary practitioner would take every reasonable precaution for his own protection if not for the patient's protection.

The British Medical Association had given consideration to the question of placing the matter of protecting public health on a better basis than what it was. They had always been very keenly interested in the matter of preventive medicine and they kept it very much to the fore. It had been the principal subject of discussion at the last Congress. It was a very big subject. They did not wish to encroach upon the work of the Health Department.

In preventive medicine the most urgent things at present were, first of all sanatoria for the treatment of cases of tuberculosis. At present advanced cases could be sent into Diamantina Hospital, but it was difficult to get them in. They had to wait a long time and they did not like going there. Then for early cases there was the sanatorium at Dalby, which only took a very limited number. The result was that there were thousands of patients suffering from tuberculosis who had nowhere to go. If there were private sanatoria for them, they would be glad to go and get treatment, but they were too advanced for Dalby and there was nowhere for them to go until they got so advanced that they had given up hope and were willing to go into Diamantina when they could get there. The Diamantina Hospital was for incurable cases. It was very well run and they were well treated, but they did not like to go there. They also had to wait a long time before they could get in. Their opinion was that a case of tuberculosis, if he wanted hospital treatment, should be able to get it.

This was the ruling of the Federal Committee of Branches at a meeting held on June 7, 1922:

> That in view of the national importance of securing a reduction in maternal mortality and morbidity and in infantile mortality, the Federal Committee urges on the Commonwealth Government that the money now devoted to the maternity bonus could be more effectively expended along the following lines:
>
> (i.) The extension of maternity hospitals, ante-natal clinics and infant welfare centres;
>
> (ii.) The provision of more efficient midwifery training for nurses and medical students;
>
> (iii.) The provision of help for mothers and expectant mothers in necessitous circumstances;
>
> (iv.) Such measures as are advised from time to time by medical experience.

He did not consider that the ravages of tuberculosis were greater than other diseases. Probably tuberculosis was a more serious menace to the community than syphilis, but both of them might be considered to be preventible to some extent. He did not consider that adequate steps were being taken to prevent the spread of either or both of these diseases. As far as tuberculosis was concerned there should be an extension of sanatoria so that any man suffering from tuberculosis and wanting hospital treatment could get it at once and be taken out of the community. With regard to venereal disease, that was a far more difficult problem and one upon which there was a very great difference of opinion between men who were highly competent to form an opinion. Some men thought that

the more official action was taken, the more people were inclined to disguise the fact that they had the disease. They thought better results could be got by letting them go to a medical man privately. On the other hand, the modern treatment of the disease was passing very rapidly out of the hands of general practitioners into the hands of specialists. In the army the action taken had been largely preventive—prophylactic—and as far as he could judge it had been very effective, but the whole thing was not a subject upon which anybody could be dogmatic. The importance of the matter was realized by the British Medical Association and it had been the subject of discussion at several meetings. They would give all the assistance they posible could to any scheme put forward.

Asked if, in the event of a system of national insurance being adopted, he would agree to the State having power to fix the scale of charges, Dr. Croll said it was a difficult question to answer. He was being asked to say what the medical profession would do under certain circumstances. The British Medical Association had several times attempted to lay down medical charges and had found it an exceedingly difficult thing to do. It was not like dealing with an ordinary commercial proposition. A doctor who was practising was trying to make a decent living for himself and his family, but he could not apply the ordinary principles of trade to his profession. In the first place, the patient was not a competent judge of what he was buying, whereas a person buying ordinary merchandise was supposed to be a judge of what he was buying. The doctor must also judge conscientiously how much the patient required. In ordinary trade, it was considered good business to sell a man as much as he could buy. A doctor was bound to do many things which were not in his own interests from the point of view of profit. For instance, a patient consulted him and wanted an operation, but it was not advisable and the doctor was bound to tell him so. A wealthy patient might come to a doctor with tuberculosis. Perhaps the proper advice would be to tell him to go away to another climate, but he would not want to go. He would be far better pleased and the doctor would be far better off financially if he would keep him at home and treat him instead of urging him to go away, but it would not be the right thing to do. In the same way if they took the case of a woman in labour, she might be having perhaps a bad time. The doctor was urged by the patient herself and her friends to terminate the labour. He could do so easily and quickly and go home and he would earn the gratitude of the woman, but in doing so he would cause her an inevitable amount of damage which would have to be rectified later on by an operation for which he would probably get more fees and more gratitude. But what he had to do was to tell them that they had to wait and probably he would earn their displeasure. Everything went off all right and the woman might perhaps regard herself as not having been very skilfully treated. If the doctor had terminated the labour as they desired, they would have been very grateful to him and it was unlikely that she would have associated any subsequent illness or operation with that procedure.

Then in fixing a fee the doctor charges, say ten shillings and six pence. People often thought he did nothing for that ten shillings and six pence, as the work only took him a few minutes, but they forgot that the fee was not only for what he did but for being there to do it. He might have been waiting weeks before doing anything. His Association was not in favour nor would it be glad to see a system by which it could fix fees and would not presume to do so. It had been tried and had failed. The question of having a member of the medical profession to regulate fees, a man who really understood the nature of the services rendered, had not been before the British Medical Association. Personally he would be in favour of having an officer who could check excessive charges and tax bills.

Asked by the Chairman if he thought a mortality rate of four in one thousand confinements could be reduced in any material way, Dr. Croll thought that it was a low rate, which might be improved under favourable circumstances. He said that there is a tendency for doctors to give up friendly society work as soon as they had firmly established themselves in a locality.

Reference was made again to the list of diseases which Dr. Croll had prepared and questions asked as to the diseases which the friendly society doctor would not be inclined to treat at the home of the patient; witness was questioned also on cancer research and "twilight sleep." The only information from the British Medical Association in the United Kingdom as to the operation of the national insurance scheme there had come through the journal. He had read the consolidated *Act* and articles in *The British Medical Journal*, but had found it difficult to get a full account of the scheme.

Asked how the arrangements with the Repatriation Department were arrived at, Dr. Croll said the Repatriation Department had made an offer which was accepted. A previous offer had not been accepted. The present arrangement had been accepted by the Federal Committee and passed on to the various Branches. Asked if he knew anything of the system under a national health scheme where certificates had to be handed in by every doctor for every patient, Dr. Croll said he had heard a good deal about them, but did not really know what they were. The certificates under the scheme with the Repatriation Department took up a good deal of time and could be very greatly simplified. In doing repatriation work more time was sometimes given to writing certificates than to the patient which he considered to be wrong.

He considered that under the baby bonus scheme instituted by the Commonwealth Government that women had called in doctors more frequently than they did in the past and that they had made use of private nursing homes far more extensively since the introduction of the bonus system. He was decidedly of the opinion that the bonus system had brought about a distinct improvement in the condition of affairs so far as mothers were concerned. He had practised both before and after the introduction of the bonus system and he believed that women were more inclined to go into private hospitals or engage a trained nurse than they had been before.

Asked if under a national scheme of insurance, he thought it would be advantageous to have a board of administration to deal with the sickness part of it, Dr. Croll said if there was to be efficient working there must be a board under the control of men who understand the work. That board could then be responsible to anybody they liked. If medical men under the control of a lay board or committee were not honest, they could almost do what they liked with the board and perhaps be fully appreciated without doing any good work, whilst on the other hand they might have very good men who were not in the least appreciated by those who were in control, although they might be doing excellent work. There was also the tendency with a lay board to be asked to do more work than it was possible for them to do properly. It was only a medical board that would have any idea of what amount of work could be done properly. He would have a board composed of medical men and then there could be another board composed of professional and lay men. The medical board could be responsible to the other board.

In his experience the sickness rate was heavier with married women than with any other section of the community. He had not noticed that sickness experience was worse or better in friendly society members than in the general population.

He did not say that it was essential to send everybody suffering from tuberculosis to a sanatorium, but that he would make it possible for every person who wanted to go to a sanatorium to get that opportunity. He did not think it would require a tremendous extension of the sanatoria to cope with that suggestion. The sanatoria would not have to be very large. If a man suffering from tuberculosis was sent to a sanatorium for a time the value was not in treating the whole complaint, but in teaching him what to do in order to avoid spreading infection, what was to constitute his diet, the nature of his work and the amount of exercise that he could take. It really taught him exactly how to conduct himself and what amount of work he could do with safety. From the very beginning he was taught how to look after his sputum

and prevent infection. A man who had tuberculosis and had spent a few months in a sanatorium had a far better chance of overcoming the disease and a far lesser chance of spreading infection than a man who had not been in a sanatorium.

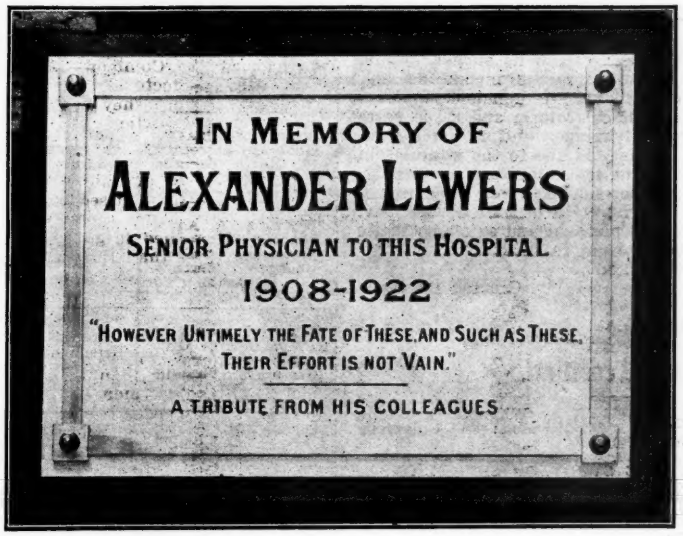
## Obituary.

### ALEXANDER LEWERS.

A memorial tablet in memory of the late Dr. Alexander Lewers was unveiled in the entrance hall at Saint Vincent's Hospital, Melbourne, with simple ceremony on Friday, March 7, 1924, in the presence of the Honorary Medical Staff, Sisters of Charity, medical students and representatives of the Lewers family.

The unveiling was performed by Dr. Murray Morton, Senior Surgeon to the Hospital, and the tablet was presented by him to the hospital authorities on behalf of the Honorary Medical Staff. Dr. Morton said:

"We are assembled under a cloud of sorrow owing to the recent death of the Reverend Mother-General who for thirty years had been Rectress of this Hospital. Dr. Lewers had enjoyed her friendship and was a wise and trusted counsellor. As evidence of our regret at the loss of our colleague and as a permanent memorial of our esteem this tablet has been erected by his colleagues. As can be seen from the tablet, his years of service were long and were particularly valuable to the hospital. During his career he filled every position of honour, as clinical teacher and lecturer, Chairman of the Staff and Dean of the Clinical School. All his work was characterized by wisdom and originality and a wholesome conservatism.


IN MEMORY OF
ALEXANDER LEWERS
SENIOR PHYSICIAN TO THIS HOSPITAL
1908-1922
"HOWEVER UNTIMELY THE FATE OF THESE AND SUCH AS THESE, THEIR EFFORT IS NOT VAIN."
A TRIBUTE FROM HIS COLLEAGUES

"As all know, Dr. Lewers wielded a charming pen and in seeking a suitable inscription for this tablet it seemed to us that a passage of his own creation would be most apt to give a slight indication of his delightful mind. The quotation which appears on the tablet, is taken from his essay on 'The Doctor' in his book, 'Medicine and Meditation,' a book worthy to rank with anything written by Osler."

Dr. Murray Morton then unveiled the tablet which is of brass and of simple design, as can be seen in the accompanying illustration.

Dr. Norman McArthur, Chairman of the Honorary Medical Staff, said:

"On behalf of the Mother Rectress and Sisters of Charity of Saint Vincent's Hospital, I gratefully accept this splendid memorial of the late Dr. Alexander Lewers. It is a fitting tribute to one who spent so much of his time and energy for the betterment of this great institution, who was always ready and willing to give advice to the administrators of this hospital. His kindly nature, his skill as a physician and his excellence in advice have left a deep impression on the memory of the Sisters of Charity. This tablet will now perpetuate his memory and on the sisters' behalf, I am grateful to the staff for this unique memorial to a splendid man."

### ALFRED WILLIAM ESLER.

On March 8, 1924, Dr. Alfred William Esler was suddenly overtaken by death. His early decease was in no way anticipated and he was following his usual daily routine of practice at the time of his collapse and death.

Alfred William Esler was born at Maldon, Victoria, on December 15, 1864. Shortly after the death of his mother which occurred when he was very young, his father took him to Belfast, Ireland. After preliminary education at Queen's College, Belfast, he entered on his medical studies at the Royal University of Ireland and in 1887 was admitted to the degree of doctor of medicine, master of surgery and master of the art of obstetrics of that University. His undergradute studies were supplemented by experience as a resident medical officer at the Royal Hospital, Belfast, and later at the Liverpool Infirmary. In 1889 he returned to Australia and settled in practice at Heathcote Victoria. After twelve years in Heathcote, Alfred William Esler, accompanied by his wife, visited England in order to see his father, the late Dr. Robert Esler, of Queen's Road, London, and on his return resumed practice in Williamstown, Victoria, in succession to the late Lieutenant - Colonel H. W. Bryant. He remained in Williamstown for thirteen years and at the end of this time he disposed of his practice. He repurchased it, however, nearly seven years later, having practised at Eaglehawk, Victoria, for three years in the interval.

Alfred William Esler was of a genial and happy disposition which appealed alike to his patients and to his professional colleagues. He was particularly interested in surgical work and as relaxation always sought out-door exercise. Proficient himself in athletic sports, he took great interest in the various recreation clubs in the centres in which he practised. He was honorary surgeon to the Williamstown Football Club and during the whole of his term at Williamstown was medical officer to the Williamstown Racing Club. While in practice at Eaglehawk he was elected a member of the committee of management of the Bendigo Hospital and became President of the Bendigo Division of the Victorian Branch of the British Medical Association.

Alfred William Esler was for eight years a surgeon in the Australian Naval Reserve, having held the appointment from December, 1909, until he left Williamstown in 1917. He was prominent in masonic circles and was a Past Master of the Heathcote Masonic Lodge. He married in 1891 the eldest daughter of the late James Christie of Heathcote. His widow and three sons survive him.

# Correspondence.

## DEATHS UNDER ANÆSTHESIA.

Sir: I agree with Dr. J. F. Merrilles (The Medical Journal of Australia, March 22, 1924) that chloroform is a convenient anæsthetic in labour, but I do not agree that "there is no safer procedure in the practice of medicine than chloroform anæsthesia in labour."

Miller states in the American Year Book of Anæsthesia and Analgesia, 1915, page 108: "Chloroform was at one time believed to be free from danger when used in obstetrical cases. A number of fatalities from its use in labour have been reported. Hodgson records the case of a normal healthy woman who died under chloroform in an obstetrical case (*Atlantic Journal Record of Medicine*, November, 1911). Sitting records five deaths from chloroform in obstetrical cases in Iowa (*Journal of the American Medical Association*, February 1, 1908)." Tweedy writes: "Chloroform is closely associated in its effects on the liver and other organs with the eclamptic poisons. I have long learnt to dread this anæsthetic in all toxæmic conditions" ("Practical Obstetrics," by Tweedy and Wrench).

In view of these facts there is need of something safer. Nitrous oxide and oxygen is almost ideal, but the expense and the cumbersome machinery rule out this combination in Australia, except in special cases, such as the one reported by me in The Medical Journal of Australia, May 7, 1921.

Ether has the disadvantages of smell, slower action, engorgement of the respiratory mucous membrane and inflammability in the presence of a fire or naked flame.

The mixture of two parts of chloroform and three parts of ether has not these disadvantages and is safer than chloroform. Whether this safety is due to the stimulation of the ether or the dilution of the chloroform or both is immaterial. This mixture does not keep very well unless some alcohol is added. The addition of half or one part of *eau de Cologne* results in a pleasant and safe anæsthetic greatly appreciated by the woman in labour.

Yours, etc.,

Gilbert Brown.

Verco Buildings, Adelaide,
March 28, 1924.

# Books Received.

THE DISEASES OF THE BREAST, by Willmott H. Evans, M.D., B.S., B.Sc., F.R.C.S.; 1923. London: The University of London Press, Limited; Demy 8vo., pp. 507, with 106 illustrations with 15 in colour. Price: 27s. 6d. net.

AN INTRODUCTION TO THE STUDY OF SECRETION, by Swale Vincent, LL.D., D.Sc., M.D., F.R.S. (Edin.), F.R.S. (Can.), M.R.C.S., L.R.C.P., F.Z.S.; 1924. London: Edward Arnold and Company; Demy 8vo., pp. 168, with 35 illustrations. Price: 10s. 6d. net.

THE ENDOCRINE ORGANS: AN INTRODUCTION TO THE STUDY OF INTERNAL SECRETION, by Sir E. Sharpey-Schafer, LL.D., D.Sc., M.D., F.R.S.; Second Edition; Part I.: The Thyroid, The Parathyroids and the Suprarenal Capsules; 1924. London: Longmans, Green and Company; Crown 4to., pp. 185, with numerous illustrations. Price: 15s. net.

DISEASE IN CAPTIVE WILD ANIMALS AND BIRDS: INCIDENCE, DESCRIPTION, COMPARISON, by Herbert Fox, M.D., with a Foreword by Charles B. Penrose, M.D.; 1923. Philadelphia, London and Chicago: J. B. Lippincott Company; Crown 4to., pp. 665, with 87 plates and 28 tables.

# Medical Appointments.

Dr. Peter Lalor has been appointed Acting Medical Superintendent of the Hospital for the Insane at Sunbury, Victoria.

# Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, *locum tenentes* sought, etc., see "Advertiser," page xviii..

University of Melbourne: Assistant in Bacteriological Department.

Victorian Eye and Ear Hospital, Melbourne: Two Resident Surgeons.

# Medical Appointments: Important Notice.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429, Strand, London, W.C.

| BRANCH. | APPOINTMENTS. |
|---|---|
| New South Wales: Honorary Secretary, 30 - 34, Elizabeth Street, Sydney | Australian Natives' Association<br>Ashfield and District Friendly Societies' Dispensary<br>Balmain United Friendly Society's Dispensary<br>Friendly Society Lodges at Casino<br>Leichhardt and Petersham Dispensary<br>Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney<br>Marrickville United Friendly Societies' Dispensary<br>North Sydney United Friendly Societies<br>People's Prudential Benefit Society<br>Phœnix Mutual Provident Society |
| Victoria: Honorary Secretary, Medical Society Hall, East Melbourne | All Institutes or Medical Dispensaries<br>Australian Prudential Association Proprietary, Limited<br>Mutual National Provident Club<br>National Provident Association |
| Queensland: Honorary Secretary, B.M.A. Building, Adelaide Street, Brisbane | Brisbane United Friendly Society Institute<br>Stannary Hills Hospital |
| South Australia: Honorary Secretary, 12, North Terrace, Adelaide | Contract Practice Appointments at Renmark<br>Contract Practice Appointments in South Australia |
| Western Australia: Honorary Secretary, Saint George's Terrace, Perth | All Contract Practice Appointments in Western Australia |
| New Zealand (Wellington Division): Honorary Secretary, Wellington | Friendly Society Lodges, Wellington, New Zealand |

# Diary for the Month.

Apr. 16.—Victorian Branch, B.M.A.: Council.
Apr. 16.—Western Australian Branch, B.M.A.: Branch.
Apr. 24.—South Australian Branch, B.M.A.: Branch.
Apr. 25.—Queensland Branch, B.M.A.: Council.
May 2.—Queensland Branch, B.M.A.: Branch.
May 7.—Victorian Branch, B.M.A.: Branch.
May 8.—Brisbane Hospital for Sick Children: Clinical Meeting.
May 9.—Queensland Branch, B.M.A.: Council.
May 9.—South Australian Branch, B.M.A.: Council.
May 14.—Tasmanian Branch, B.M.A.: Branch.
May 14.—Melbourne Pædiatric Society.
May 21.—Victorian Branch, B.M.A.: Council; Election of Representative on Representative Body.
May 21.—Western Australian Branch, B.M.A.: Branch.
May 23.—Queensland Branch, B.M.A.: Council.
May 29.—South Australian Branch, B.M.A.: Listerian Oration.

# Editorial Notices.

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All communications should be addressed to "The Editor," The Medical Journal of Australia, B.M.A. Building, 30-34, Elizabeth Street, Sydney. (Telephone: B. 4635.)

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